

RICERCHE EFFETTUATE

SANITA' ANIMALE

Alborali°L

Climatic variations related to fish diseases and production

Vet Res Commun. - Vol. 30 suppl 1 (2006). - p 93-97. - 27 bib ref [Nr. Estr. 3316]

Alborali°L

Ileite: importanza economica, patogenesi, sintomatologia = Ileitis: economic impact, pathogenesis, clinical and subclinical form

Atti del XXIX Corso in patologia suina e tecnica dell'allevamento : Brescia, 04 Ottobre - 13 Dicembre 2005 / a cura di Loris Alborali, Maddalena De Cillà. - Brescia : Fondazione Iniziative Zooprofilattiche e Zootecniche, 2006. - (Atti delle giornate di studio Fondazione Iniziative Zooprofilattiche e Zootecniche ; 64) p 203-214. - 24 bib ref [Nr. Estr. 3354]

Corso in patologia suina e tecnica dell'allevamento (29 : Brescia : 04 Ottobre - 13 Dicembre 2005)

Si considera l'enteropatia proliferativa o ileite, ritenuta oggi una delle più importanti patologie enteriche dei suini. Conosciuta sin dal 1931, è sostenuta da *Lawsonia Intracellularis*, patogeno intracellulare con ciclo oro-fecale, diffuso negli allevamenti di tutti i Paesi del mondo. Nel 2002 si è osservato che la prevalenza stimata dell'Ileite in molti Paesi Europei variava dal 52 al 100 % degli allevamenti. In Italia si considera che gli allevamenti di una certa consistenza numerica, sierologicamente positivi siano dal 67 al 87%. Le tre principali forme della malattia sono la acuta, la cronica e la subclinica. La forma acuta colpisce suini di età avanzata come scrofette, verri e suini all'ingrasso ed è caratterizzata da diarrea con sangue, stato anemico, morte improvvisa. La forma cronica solitamente nei nostri allevamenti colpisce suini giovani in età tra il magronaggio e l'ingrasso ed è caratterizzata da diarrea non emorragica e riduzione dell'incremento ponderale. La forma subclinica è la meno evidente ed è responsabile di riduzione dell'incremento ponderale giornaliero, peggioramento dell'indice di conversione e formazione di disomogeneità tra suini degli stessi gruppi e della stessa età. La forma subclinica è la più diffusa in grado di determinare un negativo impatto economico sul bilancio aziendale. Studi recenti hanno consentito evidenziare come suini infetti presentino un incremento ponderale giornaliero medio inferiore dell'8-31% e che necessitino del 6-33% di alimento in più per un loro valido incremento peso.

Porcine proliferative enteropathy or Ileitis is considered one of the most important infections related to enteric pathology. Ileitis is known until 1931 and is caused by Lawsonia Intracellularis, a intracellular pathogen, transmitted by oral-faecal infection, found in all pig producing countries around the world. In 2002 has been observed a great percentage of farms (52-100%) in many European countries is positive. In Italy seroprevalence of pig farms is 67-87%. Ileitis appear in pigs with different clinical signs: acut, cronic and subclinical form. Porcine haemorrhagic enteritis appear in gilt, boar and fattening pigs and cause mortality, anemia and haemorrhagic diarrhea. Cronical ileitis is typical form of 10-20 weeks growing pigs and is characterised by no haemorrhagic diarrhea and a decreased growth performance. In subclinical form diarrhoea is not been but are present reduced average daily gain, poor feed efficiency and increased weight range within the group. The economic impact of subclinical ileitis is very important related to the diffusion and severity of the disease. In sperimental infections in infected pigs is present a reduced average daily gain of 8-31 % and need 6-33% feed in growing period.

Alborali°L

Le principali infezioni da clostridi nel suinetto = Clostridiosis infections in piglets

Atti del XXIX Corso in patologia suina e tecnica dell'allevamento : Brescia, 04 Ottobre - 13 Dicembre 2005 / a cura di Loris Alborali, Maddalena De Cillà. - Brescia : Fondazione Iniziative Zooprofilattiche e Zootecniche, 2006. - (Atti delle Giornate di Studio Fondazione Iniziative Zooprofilattiche e Zootecniche ; 64) p 85-97. - 50 bib ref [Nr. Estr. 3377]

Corso in patologia suina e tecnica dell'allevamento (29 : Brescia : 04 Ottobre - 13 Dicembre 2005)

Si considerano le principali infezioni da Clostridium nell'ambito delle patologie enteriche del suinetto. In particolare sono state prese in esame l'enterite necrotico emorragica, l'enterite e la colite neonatale. L'enterite necrotico emorragica colpisce il suinetto durante tutto il periodo dell'allattamento anche se è più frequente nella prima settimana di vita ed è causata da *C. perfringens* tipo C. L'enterite da *C. perfringens* tipo A insorge generalmente all'età di 15-20 giorni e può interessare anche suinetti di 5-7 settimane nel periodo post svezzamento. La colite neonatale è sostenuta da *C. difficile*, interessa suinetti nella prima settimana di vita e si manifesta con sintomatologia caratterizzata da: dimagrimento, disidratazione, dispnea, dilatazione addominale e diarrea. Per le diverse forme cliniche sono considerate l'eziologia, la patogenesi con riferimento particolare al ruolo delle tossine, manifestazioni cliniche e le lesioni anatomopatologiche. Infine si tratta-no i principali mezzi a disposizione per il controllo di queste patologie, in particolare, l'igiene zootecnica, l'uso di antibatterici nella prevenzione, la vaccinazione e la profilassi diretta mirata al ripristino della flora microbica intestinale mediante soprattutto l'utilizzo di lattobacilli, lieviti ed oligosaccaridi.

The most important Clostridiosis infections are considered in relation to enteric pathology. Clostridium infections, necrotic and hemorrhagic enteritis, enteritis and neonatal colitis. Necrotic and hemorrhagic enteritis is caused by Clostridium perfringens type C and appear in one week piglets. C. perfringens type A enteritis appear in 2-3 week piglets but also in the post-weaning period. Neonatal colitis is caused by C. difficile and one week old piglets become progressively more emaciated and may be extremely thin and dehydrated at the time of death. For each of these we use consider aetiology, pathogenesis particularly about the role of toxins, clinical signs and anatomical pathological lesions. A control program of Clostridium disease needs correct diagnostic investigation to use specific therapeutic protocol. Finally it is reported that the most important strategy to control Clostridium infections like hygiene, antibiotics, vaccine and products can be added to sow and piglets diets.

Alborali°L, Buglisi M, Zanoni°M, Salogni°C, Guadagnini G, Tranquillo°V

Study of seroprevalence of Lawsonia intracellularis in Italian swine herds

International Pig Veterinary Society : the 19th Congress (IPVS) : 16-19 July 2006 Copenhagen, Denmark : proceedings / [Copenhagen : International Pig Veterinary Society, c2006]. - cdrom p 194. - 8 bib ref [Nr. Estr. 3513]

International Pig Veterinary Society Congress (IPVS) (19th : Copenhagen, Denmark : 16-19 July 2006)

Alborali°L, Salis F, Leotti G, Beccalossi M, Joisel F

Enzyme-linked immunosorbant assay (ELISA) response in sera of pigs repeatedly vaccinated with a PRRS killed vaccine

International Pig Veterinary Society : the 19th Congress (IPVS) : 16-19 July 2006 Copenhagen, Denmark : proceedings / [Copenhagen : International Pig Veterinary Society, c2006]. - cdrom p 23. - 4 bib ref [Nr. Estr. 3512]

International Pig Veterinary Society Congress (IPVS) (19th : Copenhagen, Denmark : 16-19 July 2006)

Alborali°L, Zanoni°M, Cordioli°P, Barigazzi°G, Guardà F

Patologia cardiaca e agenti patogeni in feti suini abortiti = Cardiac pathology and pathogens in aborted pig fetuses

Atti Convegno SIPAS. - Vol. 32 (2006). - p 161-168. - 14 bib ref [Nr. Estr. 3531]

Meeting annuale della Società Italiana di Patologia ed Allevamento dei Suini : Modena, 23-24 Marzo 2006. Comunicazioni scientifiche (32. : Modena : 23-24 Marzo 2006)

Nel corso di episodi di patologie riproduttive verificatesi nel 2003, 2004 e 2005 e caratterizzate da aborti, nascita di suinetti morti e disvitali sono stati selezionati ed esaminati 609 feti provenienti da 132 allevamenti suini. Sono state effettuate indagini microbiologiche e sierologiche e sono stati prelevati campioni di cuore da sotto-porre ad esame istopatologico. In 103 feti sono state osservate lesioni cardiache pari al 16,9 % dei soggetti esaminati. I principali patogeni evidenziati sono PCV 2, PRRS V, Streptococcus sp, and E.coli. E' stata osservata una correlazione tra lesioni cardiache e presenza di agenti patogeni soprattutto nei soggetti affetti da miocardite, endocardite ed epicardite. Alcuni soggetti con lesioni istologiche evidenti sono risultati negativi alle ricerche microbiologiche e feti senza lesioni hanno permesso di evidenziare patogeni batterici e virali.

During abortion, stillborn and weak piglets outbreak in 2003,2004 and 2005 were investigated 609 fetuses from 132 farms. Samples were collected for bacteriology, virological and serological investigations. Histological were performed in heart samples. Cardiac lesions were observed in 103 fetuses, 16,9 % of samples investigated . The most important pathogens of porcine reproductive failures were PCV 2, PRRSV, Streptococcus sp, and E.coli. Cardiacal lesions and pathogens were correlated in fetuses with miocarditis, endocarditis and epicardite. Fetuses with histopathological lesions were negative to the bacteriological, virological and serological investigations and fetuses without lesions were positive to pathogens.

Alborali °L, Zanoni°M, Salogni°C, Nigrelli°A

Diagnostica della patologia riproduttiva della scrofa = Diagnostic approach to the sow reproductive pathology

Atti Convegno SIPAS. - Vol. 32 (2006). - p 71-79 - 15 bib ref [Nr. Estr. 3532]

Meeting annuale della Societa' Italiana di Patologia ed Allevamento dei Suini : Modena, 23-24 Marzo 2006. Comunicazioni scientifiche Atti della giornata di studio "Siamo in grado di migliorare le performances riproduttive?" : Castel S. Pietro (BO), 7 Ottobre 2005 (32. : Modena : 23-24 Marzo

Le problematiche dell'apparato genitale possono interessare le scrofette e la scrofa durante tutta la vita riproduttiva oppure in fasi riproduttive diverse, durante la prima e la seconda metà della gravidanza e nel periodo della lattazione e della fecondazione . Le principali patologie riproduttive verranno esaminate partendo dalle manifestazioni cliniche che si possono osservare in allevamento e che rappresentano il primo stadio per la scelta della tipologia di campioni da effettuare in allevamento e degli agenti da ricercare in laboratorio. Inoltre verranno presentati i dati riferiti all'attività diagnostica dell'IZSLER di Brescia nel 2003 2004 e 2005 suddivisi per ognuna delle 4 categorie delle diverse problematiche riproduttive. I principali agenti virali che hanno coinvolto l'apparato genitale della scrofa sono Circovirus tipo 2 (PCV 2), Virus della sindrome riproduttiva e respiratoria suina (PRRSV), Virus della Malattia di Aujeszky (ADV) e Parvovirus. Fra gli altri agenti infettivi abortigeni sono da ricordare Leptospira sp, Erysipelothrix rhusiopathiae ed altri patogeni batterici quali Streptococcus sp, Staphylococcus sp and E. coli. che, pur non essendo specifici per l'apparato genitale, sono responsabili di infezioni uterine e vaginali. Inoltre verrà proposto un approccio diagnostico standard di campo e di laboratorio rivelatosi efficace nello svelare l'implicazione di agenti infettivi in 18 allevamenti colpiti da gravi episodi di aborto e nati mortalità.

Reproductive failures can be detected in gilts and in all sow life or in different reproductive step during first and second half of pregnancy and post partum and weaning period. Major reproductive pathologies will be investigated with clinical signs observed in herds, samples and pathogens. Diagnostic activity results obtained in IZSLER Brescia during 2003, 2004 and 2005 are presented in 4 groups of different reproductive failures. The most important pathogens of porcine reproductive failures are PCV 2, PRRSV, Leptospira sp, Erysipelothrix rhusiopathiae and others aspecific like Streptococcus sp, Stappyllococcus sp and E.coli causes of infectious in genital organs. A diagnostic standard approach performed in herd and in laboratory proved to be an efficacious tool to detect pathogens in 18 farms, abortion, stillborn and weak piglets outbreaks.

Alborali°L, Zanoni°MG, Cordioli°P, Barigazzi°G, G uarda°F

Contributo allo studio della patologia cardiaca nei feti suini abortiti

Summa anim reddito. - Vol. 1 no 8 (2006). - p 37-42. - 18 bib ref [Nr. Estr. 3345]

La problematica riproduttiva, e in particolare la patologia che interessa la scrofa durante la gravidanza, rappresenta un evento relativamente frequente con importanti ripercussioni sul bilancio economico dell'allevamento suino.

Alborali°L, Zanoni°MG, Lavazza°A, Salogni°C, Giovan nini°S, Cordioli°P

Diagnosi anatomo-patologica e di laboratorio delle principali enteriti neonatali del vitello

Large Anim Rev. - Vol. 12 no 5 (2006). - p 41-45. - 20 bib ref [Nr. Estr. 3387]

Sono considerati i principali agenti patogeni responsabili delle enteriti neonatali dei vitelli ed in particolare Coronavirus, Rotavirus, E. coli, Salmonella spp., Clostridium perfringens, Criptosporidi, Coccidi. Vengono esposti i risultati delle indagini svolte durante l'attività diagnostica nel 2004, 2005 e nei primi 8 mesi del 2006. La diagnosi delle patologie enteriche prevede che agli elementi anamnestici ed ai riscontri clinici ed anatomo patologici devono essere associati a specifiche indagini di laboratorio quali esame batteriologico, immunofluorescenza, microscopia elettronica, PCR, esame parassitologico. Vengono descritti i principali quadri anatomo-patologici e le tecniche diagnostiche più utilizzate per l'isolamento e l'identificazione dei diversi patogeni.

The Authors describe the most important pathogens cause enteric diseases in calves like Coronavirus, Rotavirus, E. coli, Salmonella spp., Clostridium perfringens, Criptosporidium spp., Coccidia. In this study are considered the results of the routine diagnostic of 2004, 2005 and 2006. Diagnosis of enteric disease is carry out using anamnesis, clinica/ signs, anatomo pathological lesions and different virological, IF and IEM, bacteriological and parasitological methods. Are described pathological lesions of different enteric disease and the diagnostic methods used.

Allodi S, Bertocchi°L, Moroni P, Miranda Ribera A, P isoni G, Casula A, Scaccabarozzi L, Toni F, Bronzo V

Prevalenza delle infezioni mammarie da Prototheca spp in un allevamento di bovine da latte

= Prevalente of Prototheca spp intramammary infections in a commercial dairy herds

Buiatria. - Vol. no 2 (2006). - p 39-44. - 10 bib ref [Nr. Estr. 3383]

Nell'ambito del presente studio sono state monitorate il contenuto in cellule somatiche e la relativa analisi batteriologica di un allevamento di circa 450 capi in lattazione per la produzione del "Parmigiano Reggiano", che denunciava problemi di elevate cellule somatiche nel latte di massa. L'analisi ha rilevato come Prototheca spp rappresenti la classe di positività microbiologica maggiormente ritrovata e che causa notevoli rialzi cellulari nel latte (6,06 Log₁₀ SCC/ml, pari a 1.913.935 cell/ml). Dall'analisi dei risultati appare auspicabile effettuare ulteriori indagini epidemiologiche per poter meglio comprendere la sorgente di tale infezione e poterne prevenire efficacemente la diffusione, a fronte delle relativa inefficacia delle terapie utilizzabili in campo.

This study concerned milk somatic cell counts and bacteriological analysis assessment in a commercial dairy herd of 450 lactating cows for "Parmigiano Reggiano" production, with problems of high bulk milk somatic cell count. Analysis detected Prototheca spp. as the most important microorganism responsible for intramammary infections and high milk cell counts (6,06 Log₁₀ SCC/ml, corresponding to 1.913.935 cell/ml). Data analysis showed that it should be favourable to make additional epidemiological assessment to better understand possible environmental sources of this infection and reduce its spread, despite of poor efficacy of field therapym.

Amadori°M, Begni°B, Ritelli M, Podavini

Effects of Interferon-[alfa], on the inflammatory response to bacterial endotoxin in swine peripheral blood mononuclear cells

2nd European Veterinary Immunology Workshop : program and book of abstracts : September 4th-6th, 2006 Paris, France / [Paris : 2006]. - p 14 [Nr. Estr. 3304]

European Veterinary Immunology Workshop (2 : Paris, France : September 4th-6th, 2006)

We had previously reported on a role of interferon (IFN)-[alfa] in the regulation of inflammatory cytokine genes in swine pulmonary alveolar macrophages (PAM). In this model, IFN-[alfa] at a very low concentration (0.5 U/mL) could reduce the expression of the TNF-[alfa] gene, as opposed to a 100-fold higher concentration. No such effect had been observed with regard to both IL-1[beta] and IL-6 genes. Owing to the above, we wondered if IFN-[alfa] could exert a similar regulation on functionally immature cells like blood monocytes. Thus, swine peripheral blood mononuclear cells were supplemented with IFN-[alfa] at different final concentrations (0.5 and 50 U/mL), and then stimulated with LPS. The expression of the TNF-[alfa], IL-1[beta] and IL-6 genes was investigated by semi-quantitative PCR. As opposed to the PAM model, IFN-[alfa] at both concentrations could significantly reduce the expression of the IL-6 and not of the TNF-[alfa] gene. The results of TNF-[alfa] bioassays on cell culture medium were in agreement with this result. In addition, a significant inhibiting effect on the IL-1[beta] gene was exerted at 50 U/mL IFN-[alfa], only. The above findings confirm a role of IFN-[alfa] as a homeostatic agent in the inflammatory response. In particular, the preferential regulation of the IL-6 gene in peripheral blood cells could be related to the role of this cytokine in the acute phase response. As opposed to the lung environment, the down-regulation in blood of some inflammatory cytokine genes could be exerted by IFN-[alfa] at moderate concentrations (50 U/mL), during innate immune response to viral and bacterial infections.

Amadori°M, Ritelli°M, Tagliabue°S, Pacciarini°ML

Macrophage cell cultures for rapid isolation of intracellular bacteria : the Mycobacterium bovis model

Diagnostic bacteriology protocols / edited by L. O'Connor. - 2nd ed. - Totowa, NJ : Humana Press, 2006. - (Methods in molecular biology ; vol. 345) p 203-217. - 62 bib ref [Nr. Estr. 3326]

Isolation of *Mycobacterium bovis* from suspected cases of bovine tuberculosis demands laborious and time-consuming procedures. Also, direct PCR procedures on tissue samples show poor sensitivity, whereas radiometric and fluorescence-based identification procedures demand high running costs and do not reduce the time needed for isolation to less than 10 to 15 d. Owing to the aforementioned obstacles, the human macrophage cell line THP-1 and other macrophage cell lines were investigated in experiments of *M. bovis* propagation and isolation from organ samples. Macrophage cells can support a high-titered propagation within 48 h of minute amounts of both BCG and fully pathogenic *M. bovis* strains from organ samples. A proper antibiotic mixture prevents contamination of cell cultures. A seminested PCR for tuberculosis complex-specific insertion sequence IS6110 revealed *M. bovis* infection in infected cells. The same result can be obtained by a flow cytometry assay for expression of *M. bovis* chaperonin 10. The reduced time for isolation and identification of *M. bovis* (48–72 h) and the consistency of the test results make the use of macrophage cell lines attractive and cost-effective for veterinary laboratories involved in surveillance of bovine tuberculosis.

Antoniolli P, Ghilardi P, Del_Puppo E, Tranquillo° V

L'anagrafe delle aziende zootecniche e degli allevamenti della regione Lombardia

Osservatorio. - Vol. 9 no 4 (2006). - p 10-15. bib ref 3 [Nr. Estr. 3320]

Arrigoni°N, Alborali°L, Bertoletti°I, Boldini°M , Fabbi M, Invernizzi°A, Losini°I, Luini°M, Monaci°C, Rosignoli°C, Sacchi°C, Tamba°M , Belletti°GL

Indagine sulla prevalenza di paratubercosi negli allevamenti bovini da latte della Lombardia
= Survey of paratuberculosis prevalence in dairy herds of the Lombardia Region

Buiatria. - Vol. no 1 (2006). - p 7-11. - 5 bib ref [Nr. Estr. 3299]

391 allevamenti da latte, stratificati per consistenza e per provincia, sono stati selezionati al fine di stimare la prevalenza di Paratuberculosis sul territorio della regione Lombardia. La definizione della prevalenza è stata effettuata mediante esame sierologico individuale su un totale di 38.487 animali di età superiore a 12 mesi, e successivo prelievo di feci dagli animali sieropositivi, limitatamente agli allevamenti in cui non si raggiungeva una specificità aggregata di almeno il 95%. La prevalenza corretta di allevamenti infetti è risultata essere il 19,2%, mentre i capi sieropositivi sono risultati il 2,6%.

391 dairy herds, stratified for dimension and province, were selected with the purpose of defining paratuberculosis prevalence in the Lombardia region. The prevalence was estimated by serological individual tests on a total of 38.487 dairy cattle over 12 months, followed by fecal sampling only on the seropositive cows of the herds that didn't reach a herd specificity of 95%. The estimated herd prevalence was 19,2%, while the percentage of seropositive cows was 2,6%.

Arrigoni°N, Cammi°G, Losini°I, Taddei°R, Tamba° M, Belletti°GL

Diagnosi di paratuberculosis bovina: sensibilità del test sierologico ELISA dal latte di massa
= Diagnosis of bovine paratuberculosis: sensitivity of ELISA test on bulk milk

Buiatria. - Vol. no 1 (2006). - p 3-6. - 6 bib ref [Nr. Estr. 3427]

52 allevamenti di bovine da latte, con stato di infezione paratuberculare accertato mediante esame sierologico ELISA (Institut Pourquier) individuale, sono stati sottoposti a prelievo ripetuto di campioni di latte di massa. Dall'analisi di 183 campioni di latte di massa, mediante esame sierologico ELISA con lo stesso kit commerciale, il 30,1% dei campioni e il 40,4% delle aziende sono risultati reattivi (positivi o dubbi). La sensibilità appare fortemente correlata alla sieroprevalenza aziendale. Il campionamento ripetuto aumenta la sensibilità di questo strumento diagnostico.

52 dairy herds, in which paratuberculosis was diagnosed by serological ELISA test (Institut Pourquier) on individual samples, were submitted to repeated bulk milk sampling. Testing 183 bulk milk samples by the same ELISA commercial kit, 30,1% of samples and 40,4% of herds resulted reattive (positive or doubtful) to paratuberculosis. The sensitivity appears strongly correlated to the herd prevalence. The repeated sampling enhances the sensitivity of this diagnostic tool.

Avisani D, Zanardi°G, Boselli R, Gaidella A, Gemma_Br enzoni L

Secondo caso di positività per Scrapie in Lombardia

Osservatorio. - Vol. 9 no 1 (2006). - p 13-14 [Nr. Estr. 3279]

Bano L, Meriardi°G, Bonilauri°P, Cattoli G, Sgard oli G, Agnoletti F

Isolamento di Brachyspira pilosicoli da episodi di enterite nel cane

Summa anim compagna. - Vol. 23 no 1 (2006). - p 11-14 [Nr. Estr. 3535]

La presenza di Brachyspira pilosicoli nelle feci di giovani cani con diarrea e la remissione sintomatologica a seguito di terapia con lincomicina, permettono di ipotizzare un ruolo eziologico di questa spirocheta nelle sindromi enteriche del cane.

Barigazzi°G, Foni°E, Garbarino°C, Chiapponi°C, C e vidalli AE

Evaluation of antibiotic activity against pathogenes involved in multi etiological PRDC

International Pig Veterinary Society : the 19th Congress (IPVS) : 16-19 July 2006 Copenhagen, Denmark : proceedings / [Copenhagen : International Pig Veterinary Society, c2006]. - cdrom p 465. - 2 bib ref [Nr. Estr. 3510]

International Pig Veterinary Society Congress (IPVS) (19th : Copenhagen, Denmark : 16-19 July 2006)

Barigazzi°P, Foni°E, Garbarino°C, Leotti G

Determinazione della minima concentrazione inibente (MCI) dell'associazione trimetoprim/sulfadimetossina nei confronti di batteri patogeni per il suino = In vitro

susceptibility of various bacteria to trimethoprim plus sulphadimethoxin from pigs in Italy

Atti Convegno SIPAS. - Vol. 32 (2006). - p 335-338. - bib ref 9 [Nr. Estr. 3526]

Meeting annuale della Societa' Italiana di Patologia ed Allevamento dei Suini : Modena, 23-24 Marzo 2006. Comunicazioni scientifiche (32. : Modena : 23-24 Marzo 2006)

Gli Autori hanno determinato le Minime Concentrazioni Inibenti (MCI) dell'associazione Trimetoprim-Sulfadimetossina (L5) nei confronti di 52 ceppi batterici isolati in Italia nell'anno 2005 dal suino nel corso dell'attività diagnostica corrente, così suddivisi: 13 di *Actinobacillus pleuropneumoniae*, 8 di *Bordetella bronchiseptica*, 5 di *Haemophilus parasuis*, 6 di *Pasteurella multocida*, 5 di *Streptococcus suis*, 8 di *Escherichia coli* K88+ e 7 di *Salmonella* sp..La maggior parte dei ceppi testati sono stati inibiti a concentrazioni variabili dei due principi attivi varianti dalla massima (=32/160 µg/ml) alla minima concentrazione saggiata (=0.015/0.075 mg/ml). Considerato che il breakpoint dell'associazione Trimetoprim+Sulfamidico è collocato tra :52/10 e >_4/20 µg/ml, la maggior parte dei ceppi testati, 44 su 52, sono da considerarsi sensibili all'associazione dei due farmaci. Tutti i ceppi appartenenti ai generi *B. bronchiseptica*, *P. multocida* e *S. suis* sono nella fascia di sensibilità, mentre i microrganismi considerati resistenti non vengono inibiti neppure alle più alte (32/160µg/ml) concentrazioni dei farmaci. Le resistenze più significative sono registrate a carico degli Enterobatteri.

The Minimum Inhibitory Concentration (MIC) values of Trimethoprim plus Sulphadimethoxin (1:5) against 52 bacterial strains isolated in Italy during 2005 diagnostic activity from diseased swines were determined. 13 strains of Actinobacillus pleuropneumoniae, 8 of Bordetella bronchiseptica, 5 of Haemophilus parasuis, 6 of Pasteurella multocida, 5 of Streptococcus suis, 8 of Escherichia coli K88+and 7 of Salmonella sp. were examined. Trimethoprim plus Sulphadimethoxin inhibited the growth of most the examined bacterial strains at concentrations ranging from higher (=32/160 µg/ml) to lowest (=0.015/0.075 mg/ml). Since the breakpoint of Trimethoprim plus Sulphadimethoxin is between =52/10 e =4/20 µg/ml most of tested strains (44 of 52) were considered sensitive. All the strains of B. bronchiseptica, P. multocida and S. suis were sensitive, 50% of E. coli and 2 of 7 strains of Salmonella sp. showed resistance.

Battaglia GC, Antonini E, Pedersoli D, Festa L, Astuti M, Tranquillo °V, Zanardi°G, Genchi C

Indagine sulla presenza di fattori e comportamenti a rischio per la diffusione di Cisticercus bovis nell'allevamento bovino della Valcamonica

Osservatorio. - Vol. 9 no 6 (2006). - p 4-10 [Nr. Estr. 3360]

Bellini°S, Boldini°M, Zanardi°G

Swine vesicular disease: biosecurity measures to apply in farms to avoid virus incursion and diffusion

Innovation : reshaping veterinary epidemiology : ISVEE XI : handbook & abstracts : 6-11 August 2006, Cairns Convention Centre, Queensland, Australia / [Queensland Australia : 2006]. - p 254 [Nr. Estr. 3314]

International Symposium of International Society for Veterinary Epidemiology and Economics (ISVEE) (11th : Queensland Australia : 6-11 August 2006)

Swine vesicular disease (SVD) is a vesicular disease of pigs induced by a virus classified as an Enterovirus genus within the Picornaviridae family. Although the disease is frequently mild in nature it was included in the list A of the OIE for the similarity of its lesions to those produced by FMD. In Europe the last decade SVD has been persistently reported in Italy and for this reason surveillance and eradication activities are in place. SVDV is extremely resistant to the environment and to normal disinfectants, a feature of major importance in the epidemiology and control of the disease. Direct contact of susceptible animals with infected pigs or contaminated materials, premises or means of transport is usually necessary for disease transmission. Unlike FMD, swine vesicular disease has a limited tendency to diffuse, even within infected premises, spread from one pen to another may not happen in absence of movement of infected pigs or contaminated material, this the reason why SVD is regarded as "pen disease" rather than a "farm disease". On the basis of the risk factors highlighted in SVD outbreaks some biosecurity measures were defined to avoid virus incursion and diffusion in areas with high density of pigs. For the purpose of this study the epidemiological investigations carried out in SVD outbreaks detected in Lombardia during the 1998-1999 and 2002 epidemics were evaluated; these investigations were chosen because the outbreaks: 1) were localized in areas with high density of pigs and 2) had a specialized intensive production system.

Bellini S, Cantoni R, Stefani G, Bonazza V, Zanardi G

Information system for the management of foot-and-mouth disease: validation of geocoding process accuracy in field epidemiology through the comparison of three georeferencing methodologies

Innovation : reshaping veterinary epidemiology : ISVEE XI : handbook & abstracts : 6-11 August 2006, Cairns Convention Centre, Queensland, Australia / [Queensland Australia : 2006]. - p 96 [Nr. Estr. 3315]

International Symposium of International Society for Veterinary Epidemiology and Economics (ISVEE) (11th : Queensland Australia : 6-11 August 2006)

The introduction of Foot and Mouth Disease (FMD) in a Country would be particularly damaging due to its high spreading potential. Outbreaks of this disease could have severe consequences for animal welfare, livestock production, export of animal products and for the environment. The main line of defense when facing this type of danger, is the ability of organizing actions plans to fight the epidemic emergency with efficacy, efficiency and timeliness. The Italian Reference Center for Vesicular Diseases has realized a system to support decisions and operations in case of epidemic emergencies due to the introduction of FMD and a component of this system is GIS (Geographical Information System). The validity of epidemiological studies using GIS and geocoding methods depends on the proportion of addresses that can be geocoded as well as the accuracy of the geocoding process. Several studies have assessed the address matching rate of commercial geocoding companies and found that matching rates are typically 60-80%. Verification of each subject's address location by other methods, like GPS, would require considerable time and resources, especially for a large study. Anyway positional inaccuracy of geocoded addresses may be an important source of exposure misclassification in epidemiology. In this study we compare the location of farm addresses measured by three different methodologies: Global positioning system (GPS) receivers; Positions geocoded with a commercially available reference theme; Positions achieved by operators, through a desktop mapping software (GeoZoo)..

Bellini°S, Cantoni R, Stefini G, Ferrarini G

Realizzazione di un sistema informativo integrato per la gestione delle attività di sorveglianza della malattia vescicolare del suino

Medicina umana, medicina veterinaria e tutela dell'ambiente: possibili sinergie in sanità pubblica : riassunti : Istituto Superiore di Sanità Roma, Perugia 12-13 Giugno 2006 / a cura di Gaia Scavia ... [et al.]. - Roma : Istituto Superiore di Sanità, 2006. - (ISTISAN congressi ; 06/C4) 3516]

Workshop nazionale di epidemiologia veterinaria : Perugia : Perugia 12-13 Giugno 2006)

Dal 1973 in Italia la malattia vescicolare del suino (MVS) è inserita nell'elenco delle malattie soggette a notifica obbligatoria (O.M. del 13 febbraio 1973) e dal 1995 sono iniziate le attività di sorveglianza ed eradicazione. I piani predisposti avevano come obiettivo finale l'eradicazione della malattia, da raggiungersi mediante l'accreditamento sanitario delle aziende e delle regioni. Le attività di sorveglianza nel tempo sono state modificate per adeguarsi alla mutata situazione epidemiologica e ai cambiamenti osservati nel quadro clinico della malattia. Il Ministero della Salute ha reso obbligatorio l'esecuzione dell'attività di sorveglianza sul territorio nazionale attraverso l'emanazione di specifiche Ordinanze, l'ultima in ordine cronologico quella del 25 Luglio 2001. E' per gestire le principali attività previste dal Piano che è stato realizzato un sistema informativo attraverso il quale vengono rese disponibili informazioni di tipo divulgativo e gestionale, connesse alla realizzazione del Piano. Vista la natura dinamica delle informazioni contenute e la necessità di accedere al servizio da svariati punti di accesso (Ministero, CERVES, Regioni, IZS) il sistema è stato sviluppato utilizzando tecnologia WEB, si accede attraverso internet mediante il dominio di secondo livello (<http://www.cerves.it>). Sono stati utilizzati applicativi open source sia nella fase di sviluppo (linguaggio php) che di organizzazione dei database (mysgl). Il sistema è operativo ed è alimentato sia in maniera automatizzata che periodica. E' previsto un aggiornamento giornaliero per gli esiti di laboratorio e per i dati anagrafici e un aggiornamento periodico dagli Istituti Zooprofilattici competenti per territorio, dal CERVES e dal Ministero. Il sistema prevede, attraverso una procedura di geocoding, la definizione provvisoria delle coordinate cartografiche sulla base dell'indirizzo dell'azienda presente in anagrafica.

Bellini°S, Ferrarini N, Santucci U

Implementatin of an integrated informaton system for the management of the surveillance activities for swlne vesicular disease in Italy

1st OIE international conference : use of GIS un veterinary activies : 8-11 Ottobre 2006 Silvi Marina (TE) : Abstract book / [s.l. : s.n., 2006]. - p 28 [Nr. Estr. 3370]

OIE international conference (1. : Silvi Marina (TE) : 8-11 ottobre 2006)

Bellini°S, Zanardi°G, Ferrarini N, Santucci U

Swine vesicular disease: surveillance and eradication activities carried out in Italy and considerations on the measures adopted in Europe for SVD control on the basis of the knowledge acquired on the disease

Innovation : reshaping veterinary epidemiology : ISVEE XI : handbook & abstracts : 6-11 August 2006, Cairns Convention Centre, Queensland, Australia / [Queensland Australia : 2006]. - p 45 [Nr. Estr. 3318]

International Symposium of International Society for Veterinary Epidemiology and Economics (ISVEE) (11th : Queensland Australia : 6-11 August 2006)

Swine vesicular disease (SVD) was first observed in Italy in 1966, where it was clinically recognised as foot-and-mouth disease (FMD), despite clinical signs the virus resulted an Enterovirus within the Picornaviridae family. SVD was included in the List A of the OIE for the similarity of its lesions to those produced by FMD, however SVD is often mild in nature and may infect pigs without manifesting itself by clinical symptoms. In Europe during the last decade SVD has been persistently

reported in Italy and for this reason surveillance and eradication activities are in place. The central northern parts of Italy have been qualified SVD-free and have maintained this health status since 1997, while others Southern regions never gained the disease free-status. However from time to time SVD outbreaks occurred both in Central and Northern Italy and have always been eradicated following the adoption of rigorous control measures. In Italy in recent years in the majority of the outbreaks, the course has been sub-clinical; therefore SVD can rarely be diagnosed on the basis of clinical symptoms and it is necessary to resort to laboratory diagnosis. Anyway in case of pigs showing symptoms of a vesicular disease a quick differential diagnosis between FMD and SVD is available to discriminate between the two diseases. This work examines the epidemiological situation of SVD in Italy, with particular reference to the last two years. Various considerations are made on the measures adopted in Europe for SVD control on the basis of the knowledge acquired on the disease.

Bolognesi PG, Galuppi R, Catelli E, Cecchinato M, Frasnelli°M, Raffini°E, Marzadori°F, Tampieri MP

Focolaio di coccidiosi da Eimeria kofoidi ed E. legionensis in pernici rosse (Alectoris rufa) = Outbreak of Eimeria kofoidi and E. Legionensis coccidiosis in red -legged partridges (Alectoris rufa) Ital J Anim Sci. - Vol. 5 no 3 (2006). - p 318-320. - 7 bib ref [Nr. Estr. 3325]

Viene riportato un focolaio di coccidiosi verificatosi in pernici rosse allevate in una azienda faunistico-venatoria italiana. All'esame necroscopico i soggetti colpiti presentavano una duodenite catarrale-emorragica. L'esame microscopico diretto del contenuto intestinale metteva in evidenza la presenza di numerose oocisti che, dopo incubazione, sono state identificate su base morfologica come appartenenti a due specie distinte: Eimeria kofoidi ed E. legionensis.

An outbreak of coccidiosis occurred in red-legged partridges is reported. At the post-mortem examination the birds showed a mucous haemorrhagic enteritis, mostly in the duodenal intestinal tract. Direct microscopic examination of intestinal content revealed the presence of a high number of oocysts. After incubation, on the basis of the morphological features, two species of coccidia were identified: Eimeria kofoidi and E. legionensis.

Bolzoni°G, Benicchio°S, Posante°A, Boldini°M, Peli° M, Varisco°G

Esame batteriologico del latte, alcune considerazioni su esecuzione, interpretazione dei risultati e frequenza degli isolamenti = Milk culture examination, some valutations on execution, interpretation of results and frequence of isolations

Large Anim Rev. - Vol. 12 no 5 (2006). - p 3-11. - 5 bib ref [Nr. Estr. 3388]

La diagnosi eziologica delle infezioni mammarie rappresenta un settore particolarmente delicato delle attività di laboratorio, gli addetti ai lavori conoscono in genere i molteplici fattori limitanti, i compromessi necessari e le cause di variabilità di questo tipo di attività analitica. Non sempre invece questi aspetti sono noti a chi utilizza ed interpreta i risultati delle analisi per la loro applicazione in campo. Prendendo spunto dall'esame batteriologico eseguito su 15.612 campioni di latte (di cui 7.682 con esito positivo) nel "Reparto latte" dell'Istituto Zooprofilattico Sperimentale di Brescia, con il presente lavoro si cerca di fare il punto proprio sugli aspetti più problematici di questa procedura analitica. La conoscenza e la condivisione delle scelte applicative delle tecniche analitiche sono a nostro avviso indispensabili, oltre che per la corretta interpretazione dei risultati e la loro applicazione in campo, anche per l'assemblamento dei dati provenienti da più laboratori, la creazione di data base informativi, le valutazioni statistiche ed i programmi di sorveglianza epidemiologica in un settore decisamente particolare e specialistico come quello delle mastopatie di natura infettiva.

Etiological diagnosis of mastitis is a very delicate issue in the laboratory activity, generally person in charge knows the restricting factors how to split the difference and the variability reasons of this kind

of analytical procedures. It isn't the same thing for who uses these results in field (veterinary and farmer). Taking cue about bacteriological examination on 15.612 milk's samples (7.682 with positive results), of Wilk Lab. " (Istituto Zooprofilattico Sp. della Lombardia e dell'Emilia Romagna" Brescia, 1), with this work we try to underline and point out the critical issues of this analytical test The knowledge and agreement of different choices among the analytical techniques are necessary to acquire the suitable evaluation and use of the results. This is also important for the collection results from different laboratories, making up database, statistical elaborations, epidemiological surveillance in a specific area as mastitis diagnosis.

Bonardi S, Paris A, Bacci C, D'Incau°M, Ferroni L, Brindani F

Isolamento e tipizzazione di Yersinia enterocolitica da suini e bovini = Detection and characterization of Yersinia enterocolitica from pigs and cattle

LX Convegno Nazionale della Societa' Italiana delle Scienze Veterinarie (SISVET) : 27- 30 Settembre 2006, Città del Mare - Terrasini (PA) / [s.l. : s.n., 2006]. - p 401-402. - 9 bib ref [Nr. Estr. 3556]

Convegno Nazionale della Societa' Italiana delle Scienze Veterinarie (SISVET) (60 : Terrasini, Palermo : 27-30 Settembre 2006)

A total of 208 samples from 98 pigs at slaughter (98 caecal content samples, 98 carcass swabs, 12 samples of scalding vat water) and 63 fecal samples collected from 21 Brucella abortus serological positive dairy cows were analyzed for Yersinia enterocolitica. In swine samples, Y. enterocolitica was detected in 10.2% (10/98) of the caecal matter, in 1.02% (1/98) of the carcass swabs and in 8.3% (1/12) of the water samples. Distribution of bio/serotypes was the following: 58.3% (7/12) 1A/ONT, 33.3% (4/12) 3/0:9 and 8.3% (1/12) 4/0:3. From three dairy cows, Y. enterocolitica 0:9 biotype 3 was isolated up to six months after the onset of serological cross-reactivity. No yadA-positive strains were detected among Y. enterocolitica isolates.

Bonilauri°P, Chiapponi°C, Tosi°G, Dottori°M

Trasferimento e validazione di metodica pcr tradizionale in PCR Real Time per la rapida determinazione della presenza di PRRSV (EU)

VIII Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) : Perugia, 9-10 Novembre 2006 : volume degli atti / [s.l. : Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV), 2006]. - p253-254. - 4 bib ref [Nr. Estr. 3332]

Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) (8. : Perugia : 9 -10 Novembre 2006)

A real-time RT-PCR (two step) assay for amplification of a 398-bp fragment of the ORF7 gene was developed for rapid «6 h) detection of PRRSV EU strains. The assay, include a TRIZOL. extraction protocol and retrotranscription and Real Time PCR set up in different step and tube. This method used the same primer described previously by Bonilauri et al. (2004) and standardized in InterPCR project (www.interPCR.org). A couple of probes (FRET technologies) were design considering the ORF7 genetic variability of the Italian strains. Validation of the protocol was dove according to O.I.E. manual for terrestrial animal cap. 1.1.4 but not every points of the validation protocols were completely done.

Bonilauri°P, Mazzoni C, Merialdi G, Barbieri°I, Fal lacara°F, Dottori°

Use of ORF7 sequencing for differencing PRRSV strains from neighboring farms located in pig-dense area in Italy

International Pig Veterinary Society : the 19th Congress (IPVS) : 16-19 July 2006 Copenhagen, Denmark : proceedings / [Copenhagen : International Pig Veterinary Society, c2006]. - cdrom p 12. - 4 bib ref [Nr. Estr. 3508]

International Pig Veterinary Society Congress (IPVS) (19th : Copenhagen, Denmark : 16-19 July 2006)

Bonilauri°P, Mazzoni C, Meriardi°G, Fallacara°F , Barbieri°I, Dottori°M

Uso del sequenziamento del ORF7 del virus della PRRS, un esempio pratico = Sequencing of ORF7 gene of PRRS virus: a practical example

Atti Convegno SIPAS. - Vol. 32 (2006). - p 239-248. - bib ref 33 [Nr. Estr. 3525]

Meeting annuale della Societa' Italiana di Patologia ed Allevamento dei Suini : Modena, 23-24 Marzo 2006. Comunicazioni scientifiche (32. : Modena : 23-24 Marzo 2006)

Scopo di questo lavoro è riportare un esempio pratico dell'utilizzo del sequenziamento della regione ORF7 del virus della PRRS in un allevamento di 400 scrofe a ciclo semichiuso. A partire dal 15 marzo 2005 e per un arco di 10 giorni, abbiamo registrato una serie di 17 aborti a fine gestazione. Tra il mese di luglio 2004 e il mese di agosto 2005 sono state ottenute 8 sequenze del ORF7 del PRRSV. Sono inoltre presentati dati sulle performance riproduttive osservate nel periodo successivo alla crisi riproduttiva di marzo 2005, confrontandoli con quelli del medesimo periodo dell'anno precedente. Le sequenze raccolte nel corso della crisi riproduttiva di marzo 2005 hanno permesso di evidenziare l'ingresso in allevamento di un virus differente da quello circolante l'anno precedente. Applicazioni pratiche del sequenziamento nella gestione manageriale dell'allevamento sono discusse nel testo.

The aim of this study is to report one example of practical use of ORF7 sequencing. An abort storm start from the 15th of March that produce 17 abort in 10 days in a farrow to finish farm was observed. From July 2004 to October 2005 we record 8 ORF7 sequences of PRRSV circulating in the farm. Reproductive performance data were analyzed in comparison with year 2004. The sequencing of PRRSV strain isolated after the abort storm of march 2005 have allowed to suppose the entry in the farm of a strain of PRRSV different from the previously circulating one. Some practical indication of the utility of the sequencing of PRRSV are describe in the text.

Bonilauri°P, Meriardi°G, Dottori°M, Barbieri I

Presence of PRRSV in wild boar in Italy

Vet Rec. - Vol. 158 no 3 (2006). - p 107-108. - 1 bib ref [Nr. Estr. 3579]

Boniotti°MB, Gorla M, Garrone A, Benedetto A, Dond o A, Zoppi S, Mondo A, Bonora S, Zanardi°G, Bonazza V, Zanoni°M, Tagliabue °S, Pacciarini°ML

Molecular typing of M. bovis strains isolated in Italy

VNTR/MIRUs and DVR spoligotyping for M. bovis typing : 19th-22nd October 2006, Toledo, Spain : WP7 Workshop / Organized by Laboratory of Sanitary Surveillance : Faculty of Veterinary Medicine Universidad Complutense. - [s.l. : VENoMIC, 2006]. - p 8 [Nr. Estr. 3564]

Workshop of "VNTR/MIRUs and DVR spoligotyping for M. bovis typing" : Veterinary Network of Laboratories Researching into Improved Diagnosis and Epidemiology of Mycobacterial Diseases (VENoMIC) (WP7 : Toledo, Spain : 19th-22nd October 2006)

Molecular typing by spoligotyping and ETR analysis of M. bovis/M. coprae strains isolated in herd breakdowns has been routinely carried out since 2002 providing a data base of genetic profiles with which to support traditional epidemiological investigations. In order to apply spoligotyping and ETR analysis, we have first verified the organization of DR and ETR foci by sequencing respectively 4 and 8 M. bovis strains isolated in unrelated outbreaks in Italy. The results confirmed the stability and the genetic organization of these markers and allow us to design a reference table to calculate from

amplicon sizes, the number of repetitive units present in each ETR locus. We have characterized 1086 *M. bovis* and 48 *M. caprae* strains isolated from 2000 to 2005 in 637 cattle herds mainly located in Piemonte, Lombardia, Emilia Romagna and Veneto. We have identified 79 different spoligotypes. BCG-like is the predominant spoligotype in Italy (53,3%). ETRs analysis have shown 105 different profiles while the combination of spoligotyping/ETR typing has identified 209 genotypes; five hundred seven isolates have been grouped in 79 clusters while 130 are unique isolates. A panel of BCG-like isolates have been later on characterized by MIRUs and QUBs analysis. Typing markers used in this work, have shown a different discriminatory capacity. The allelic diversity index of single loci has been evaluated to provide the most discriminative genotyping method with reference to locally prevalent strains¹.

Brocchi^o E, Bergmann IE, Dekker A, Paton DJ, Sammin DJ, Greiner M, Grazioli^o S, De_Simone^o F, Yadin H, Haas B, Bulut N, Malirat V, Neitzert E, Goris N, Parida S, Sorensen K, De_Clercq K

Comparative evaluation of six ELISAs for the detection of antibodies to the non-structural proteins of foot-and-mouth disease virus

Vaccine. - Vol. 24 no 47-48 (2006). - p 6966-6979. - 21 bib ref [Nr. Estr. 3163]

To validate the use of serology in substantiating freedom from infection after foot-and-mouth disease (FMD) outbreaks have been controlled by measures that include vaccination, 3551 sera were tested with six assays that detect antibodies to the non-structural proteins of FMD virus. The sera came from naïve, vaccinated, infected and vaccinated-and-infected animals two-thirds from cattle, the remainder from sheep and pigs. The assays were covariant for sensitivity, but not necessarily for specificity. A commercial kit from Cedi-diagnostics and an in-house assay from IZS-Brescia were comparable to the NCPanaftosa-screening index method described in the Diagnostic Manual of the World Animal Health Organisation. Using these three tests the specificity and sensitivity. for the detection of carriers in vaccinated cattle approaches or exceeds 99% and 90% respectively.

Cafiero MA, Magnino^o S, Parisi A, Padalino I, Nardella MCF, Cavaliere N, Scaltrito D, Chiocco D

Detection of Chlamydia abortus in ovine and caprine lateterm aborted fetuses from Apulia and Basilicata (Italy)

Proceedings of the Fourth Workshop of COST Action 855 Animal Chlamydioses and Zoonotic Implications : diagnosis, pathogenesis and control of animal chlamydioses : Edinburgh, Midlothian Scotland, Uk 3rd-5th September 2006 / edited by David Longbottom, Mara Rocchi. - [Edinburgh, Midlothian Scotland, Uk : COST Action 855 Animal Chlamydioses and Zoonotic Implications, c2006]. - p 96-97. - 6 bib ref [Nr. Estr. 3514]

Annual Workshop of COST Action 855 Animal Chlamydioses and Zoonotic Implications (4 : Edinburgh, Midlothian Scotland, Uk : 3rd-5th September 2006)

Cagiola M, Bartolini C, Boniotti^o MB, Bugatti M, Crotti S, Feliziani F, Forti K, Gavaudan S, Mazzone P, Menichelli M, Pacciarini^o M, Pasquali P, Severi GP

Impiego di antigeni secretori precoci e ricombinati nel test di Elisa Gamma-Interferon : risultati preliminari

VIII Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) : Perugia, 9-10 Novembre 2006 : volume degli atti / [s.l. : Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV), 2006]. - p 257-258. - 8 bib ref [Nr. Estr. 3330]

Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) (8. :

Perugia : 9 - 10 Novembre 2006)

Bovine Tuberculosis (TB) remains in bovine species the major cause of mortality and morbidity, worldwide. Eradication programmes applied in the industrialized countries are mainly based on the single and comparative skin test (IDT), isolation and slaughtering of infected animals. However, to eliminate the disease further diagnostic tests are needed, to be used in vivo together with IDT in order to increase sensitivity and specificity. The gamma interferon test (IFN-(gamma)), on the bases of numerous studies, has turned out to be the best supportive test. The aim of our study was to increase the sensitivity of the IFN-(gamma) using also recombinant ESAT6/CFP10 antigens and precocious secretory antigens in the preliminary phases of stimulations. Preliminary data showed that these innovative antigens do not give better results than the traditional tuberculins.

Calzolari^oM, D'Altri P, Calisesi L, Dottori^oM, Vecchi G, Giombetti F

Prima segnalazione in Italia del pidocchio *Linognathus africanus* (Kellogg and Paine, 1911)

Atti Convegno SIPAOC. - Vol. 17 (2006). - p 142 [Nr. Estr. 3494]

Congresso Nazionale Societa' Italiana di Patologia e di Allevamento degli Ovini e dei Caprini (SIPAOC) (17 : Lamezia Terme (CZ) : 25/28 Ottobre 2006)

Negli Anopluri (sottordine dei Phirapthera) sono compresi gli ectoparassiti ematofagi comunemente denominati pidocchi. Molti di questi insetti, caratterizzati da una elevata specificità d'ospite, possono parassitare specie di interesse veterinario. Le specie in grado di parassitare pecore e capre sono quattro ed appartengono tutte al genere *Linognathus*: *L. ovillus*, che solitamente viene reperato sulla faccia e sulle orecchie, e *L. pedalis*, localizzato sulla parte inferiore del corpo (piedi, gambe, addome e scroto), e sono tipici delle pecore. Le due specie: *L. stenopsis* (Pidocchio delle capre) e *L. africanus* sono comunemente ritrovati sulle capre, ma possono parassitare anche le pecore. In particolare *L. africanus* è stato segnalato in diversi paesi del mondo: in Africa dove è stato descritto la prima volta, ma anche in Turchia, Israele, Mongolia, Cina, India, Filippine, Australia, USA, Messico, Cile. Storicamente fra le due specie in grado di parassitare la capra, *L. stenopsis* è quella diffusa in Europa, ma anche *L. africanus* è stato segnalato nel nostro continente, precisamente in Spagna, mancano invece segnalazioni della sua presenza in l'Italia. Il 29 Marzo 2006 è stata conferita alla sezione di Rimini dell'IZSLER, una capra per esame necroscopico, sulla carcassa erano presenti in gran numero, pidocchi appartenenti alla specie *L. africanus*, l'animale affetto da paratuberculosis conclamata era di razza meticcica e presentava una forte anemia, probabilmente dovuta anche all'infestazione da pidocchi. Il fatto che l'animale parassitato sia nato e cresciuto nell'allevamento fa supporre che *L. africanus* sia presente da tempo sul nostro territorio, in ogni caso maggiori indagini sono necessarie per stabilire la reale diffusione e l'entità della presenza del parassita in Italia.

Camarda A, Circella E, Giovanardi D, Pennelli^oD, Battista P, Campanari E, Bruni G, Tagliabue^oS

Avian pathogenic *Escherichia coli* in audouin gulls (*Larus audouinii*) could they affect the surviving of the bird colonies?

Atti del XLV Convegno Annuale Società Italiana Patologia Aviaria (SIPA) : 8 Settembre 2006 : Atti / [s.l. : s.n., 2006]. - p 41-44. - 7 bib ref [Nr. Estr. 3553]

Convegno Annuale Società Italiana Patologia Aviaria (SIPA) (45 : Forlì : 28 Settembre 2006)

Trentanove stipiti di *E. coli* isolati da uova embrionate non schiuse e tamponi cloacali di gabbiani corsi (*Larus audouinii*), facenti parte di una colonia stanziale nel Salento (Puglia), sono stati sierotipizzati e testati nei confronti dei principali geni di virulenza espressi dagli Avian Pathogenic *Escherichia coli* (APEC) (*irp2*, *fyuA*, *tsh*, *papC*, *fimC*, *iucD* ed *eae*). Sono stati distinti 8 diversi

sierotipi (01, 06, 08, 015, 075, 0139, 0146, 0147). Elevata la percentuale di E. coli non tipizzabili. La ricerca dei geni di virulenza ha evidenziato la prevalenza dei geni fimC e irp2 (rispettivamente 94,87 e 97,43%) tipici degli Avian Pathogenic E. coli. I ceppi che veicolavano il maggior numero di geni di virulenza provenivano soprattutto dalle uova. In particolare, l'8,69% di questi apparteneva al patotipo FimC/tsh/iucD/ associato nel pollame a focolai di malattia.

A total of 39 E.coli strains isolated from cloacal swabs and unhatched eggs of Audouin's gulls (Larus audouinii) living the Salento coast were serotyped and molecular characterized for the presence of irp2, fyuA, tsh, papC fimC, iucD, and eae genes described for Avian Pathogenic E. coli (APEC). Eight different serogroups (01, 06, 08, 015, 075, 0139, 0146, 0147) were distinguished: we recorded a very high rate of untypeable strains.

Genotyping by PCR achieved to detect fimC and irp2, described for APEC strains, as most predominant genes circulating in the gulls population, accounting for 94,87% and 97,43% respectively. Nevertheless, a significant co-existence of virulence genes was demonstrated to belong to E.coli of eggs origin. Particularly, fimC/tsh/iucD pathotype, recognized as most responsible of illness in poultry, emerged in 8,69% of E. coli of eggs origin.

Camarda A, Circella E, Pennelli°D, Madio A, Bruni G , Vito Lagrasta

Tipizzazione di Campylobacter jejuni e C. coli isolati da galline ovaiole durante il ciclo di produzione = Typing of Campylobacter jejuni and C. coli isolated from laying hens during the production cycle

Ital J Anim Sci. - Vol. 5 no 3 (2006). - p 295-297 - 6 bib ref [Nr. Estr. 3322]

C. jejuni e C. coli isolati in tre allevamenti di galline ovaiole durante il ciclo di allevamento sono stati tipizzati mediante PCR-RFLP della tiagellina. In totale sono stati distinti 3 pattern di restrizione (H, O, R) tipici di C. coli, 5 di C. jejuni (1, P, Q, T, S) e 8 comuni alle due specie (A, B, C, D, E, F, L, M). Il profilo D è stato evidenziato in tutti e tre i gruppi monitorati durante il ciclo di produzione. Anche il fla-tipo C manifestava un comportamento analogo negli allevamenti A e B. I risultati delle ricerche consentono di ipotizzare che alcuni tipi genetici tendono a prevalere ed a permanere nel tempo più di altri nell'allevamento e in una determinata area geografica.

C. jejuni and C. coli isolated on three layer farms during the production cycle were typed by PCR-RFLP flagellin gene profiling. Three typical restriction patterns were detected for C. coli (H, O, R), 5 for C. jejuni (I, P, Q, T, S) and 8 were common for both. The D profile was present in all three flocks. C fla-type was detected on farms A and B. The results of the study suggest that some genotypes tend to prevail and persist more than others on farms and in certain geographic areas.

Candotti°P, Rota_Nodari S

Riflessioni sulla filiera del suino "declassato"

Large Anim Rev. - Vol. 12 no 1 (2006). - p 36-43 [Nr. Estr. 3259]

L'allevamento del suino, industriale o familiare, come tutti gli allevamenti a fini di lucro, compreso gli animali d'affezione, oltre ai soggetti che soddisfano i criteri di vendita, produce una certa quantità di soggetti di valore inferiore a quello per i quali essi sono stati fatti nascere. Il destino di questi animali è oggetto di questa breve relazione.

Candotti°P, Rota-Nodari S, Leotti G, Longo S, Josel F

Relationship between piglet PRRS seroprevalence at the end of nursery and reproduction disorders due to PRRS in sows

International Pig Veterinary Society : the 19th Congress (IPVS) : 16-19 July 2006 Copenhagen, Denmark : proceedings / [Copenhagen : International Pig Veterinary Society, c2006]. - cdrom p 54. -

4 bib ref [Nr. Estr. 3496]

International Pig Veterinary Society Congress (IPVS) (19th : Copenhagen, Denmark : 16-19 July 2006)

Casimiro T, Cozzolino C, Tranquillo°M, Nassuato C

Reattività delle scrofe in sala parto e performance

Riv Suinic. - Vol. 47 no 3 (2006). - p 65-69. - 12 rif bib [Nr. Estr. 3281]

A reactivity test carried out in a period just farrowing in 171 sows treated with either 2 prostaglandin injections or 1 prostaglandin injection associated with 10 IU oxytocin showed that there is a relationship between reactions to man and number of vaginal explorations. The three kind of parturition (totally or partial assisted and not assisted) show statistically significant differences in the number of live born piglets and still born ones, whereas the number of mummies rises significantly in the fearful sows. These and other aspects come out during farrowing led us to formulate a hypothesis dealing with farm reasons of stress which caused a high number of "weak" parturitions.

Un test di reattività effettuata nel periodo preparto in 171 scrofe comparto indotto da 2 dosi di prostaglandine o da 1 dose di prostaglandina più 10 UI di ossitocina ha evidenziato che esiste una relazione tra reattività all'uomo e numero di interventi (esplorazioni vaginali) per parto. I tre tipi di parto (assistito, parzialmente e non assistito) mostrano differenze statisticamente significative per il numero di nati vivi e nati morti mentre aumenta significativamente il numero di mummificati nelle scrofe "paurose" all'uomo. Questi aspetti ed altri emersi nel corso dei parti hanno indotto a formulare un'ipotesi sulle cause aziendali degli stress che hanno indotto un alto numero di parti c.d. languidi.

Ceroli°M, Brivio R, Salogni°C, Grilli G, Lavazza°A

Valutazione dello stato zoosanitario e immunitario per la individuazione di parametri "in campo" del benessere del coniglio allevato

Riv Coniglicoltura. - Vol. 43 no 4 (2006). - p 18-19. - 5 bib ref [Nr. Estr. 3419]

Ceroli°M, Lavazza°A

Ruolo dei virus nelle patologie enteriche della moderna coniglicoltura

Riv Zootec Vet. - Vol. 34 no 1 (2006). - p 23-28. - 29 bib ref [Nr. Estr. 3391]

Le sindromi enteriche multifattoriali del coniglio ed in particolare la gastroenterite post-svezzamento degli animali all'ingrasso rivestono una grande importanza nell'allevamento del coniglio da carne per il loro elevato impatto economico. Tra i vari agenti patogeni coinvolti nell'eziologia della sindrome enterica multifattoriale i virus rivestono un ruolo ancora non del tutto chiaro e definito, anche se è accertato che molti di essi possono agire da opportunisti predisponendo infezioni batteriche e parassitarie secondarie. Gli Autori ricordano e descrivono le principali caratteristiche dei virus isolati e identificati nel coniglio, anche tenendo conto dei risultati di indagini e osservazioni originali, realizzate nel corso degli ultimi vent'anni, e condotte allo scopo di valutare la prevalenza dei differenti virus, identificati al microscopio elettronico in colorazione negativa, in conigli affetti da un generico quadro di enterite o lesioni riferibili a enteropatia mucoide con impaccamento ciecale o sindrome enteropatica enzootica del coniglio (ERE) e correlando la presenza dei virus con i sintomi e le lesioni osservate.

In the group of diseases occurring in the Italian rabbit industry, the so-called "multifactorial conditioned diseases" are the most important. The "multifactorial enteropathy" is the main of these technopathies, especially in relation to the productive and economic impacts caused by it. Many infectious agents are often involved at the same time, or they follow each other, and consequently the real pathogenic role of some of them is still uncertain. By contrast it is well known that many conditioning factors are involved in this syndrome by promoting the overgrowing of primary or

potential pathogenic agents. The pathogenic role and importance of viruses as primary aetiological agents of rabbit enteritis are here discussed by reviewing the available literature and also by taking into account the results obtained from personal investigations, performed in the last two decades with the purpose to estimate the prevalence of different viruses, identified by negative contrast electron microscopy, on samples collected from rabbits showing either a "generic" enteropathy or lesions referable to mucoid enteropathy-caecal impaction (rabbit epizootic naturopathy – ERE). This has been performed in order to recognise the main features and pathogenic capacities of different viral agents and to try to attribute them an etiological role in enteric syndromes in relation with the observed pathologic lesions.

Ceroli°M, Lavazza°A

Viral enteritis of rabbits

Recent Adv Rabbit Sci. - Vol. 15 (2006). - p 181-186. - 19 bib ref [Nr. Estr. 3522]

Chiapponi°C, Bonilauri°P, Tosi°G, Foni°E, Barig azzì°G

Trasferimento in Real Time PCR di metodica tradizionale per la rilevazione di influenza suina di tipo A

VIII Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) : Perugia, 9-10 Novembre 2006 : volume degli atti / [s.l. : Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV), 2006]. - p 31-32. - 10 bib ref [Nr. Estr. 3341]

Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) (8. : Perugia : 9 - 10 Novembre 2006)

A Real-Time RT-PCR method using a LightCycler® 1.5 dual probe system has been developed starting from conventional gel based RT-PCR test for the detection of swine Influenza virus matrix gene. The concordance between the two methods has been established and also preliminary data about sensitivity, reproducibility have been evaluated.

Circella E, Bruni G, Battista P, Pennelli°D, Camarda A

Poultry ai Salmonella infection source for workers in laying hens farms and egg packaging plants

ASM conference on Salmonella : from pathogenesis to therapeutics : September 9-13, 2006 Victoria, Canada : poster abstract / [USA : American Society for Microbiology, 2006]. - p 59-60 [Nr. Estr. 3372]

ASM conference on Salmonella (2. : Victoria, Canada : September 9-13, 2006)

Salmonella (S.) enteritidis and S. typhimurium are the main responsible of human food poisoning. Poultry is the principal reservoir of Salmonella. These bacteria are transmitted by infected meat and often by eggs and eggs products. Workers employed in farms and in selection and packaging eggs plants are particularly exposed to the infection. In order to value the contamination risk in these employed, a monitoring far Salmonella enterica has been carried out from 2002 to 2005 in 189 laying hens flocks, in 13 selection and packaging eggs plants and in workers in Apulia (South Italy). In each flock, we collected at least 30 eggs, faeces and feed samples. Swabs from the floor and working desks were collected in egg selection plants. Furthermore., swabs were collected from egg selection machines and from workers. The bacteriological assays were undertaken according to the International standard Organization (ISO). Salmonella strains were serotyped. Salmonella spp. was found in. 15,87% of tested flocks. In 3,7% flocks, Salmonella was found both in faeces and on egg shells. Besides, the presence of Salmonella was sporadically: found in feed samples. In selection and packaging plants, floor and working desks, egg graders and egg conveyor belts contamination rates was 33,57% and 29,02% respectively. S. enteritidis and S. Opbimuriùm was prevalent

serovars. In many cases, different serovars followed one another at different times in the same farm. No specific symptoms were observed in infected animals. The same serovar tended to become endemic in a certain farm. The contamination of the workers employed in selection plants is worth mentioning: 11,43% of isolated Salmonella strains was from samples collected from workers' shoes. *S. typhimurium* was isolated by workers, besides in flocks and selection and packaging plants. Such result is particularly worrying if we consider that often the same staff is employed both in flocks and in selection and packaging plants. As a consequence, they cannot only represent an important source of bacterial spreading, but they are also particularly exposed to the infection.

Cordioli°P, Moreno°A, Lelli°D, Sozzi°E, Gamba°D , Brocchi°E

Antigen typing elisas for hs and 117 avian influenza viruses using monoclonal antibodies

7th International Congress of the European Society for Veterinary Virology : 24-27 September 2006, Lisboa - Portugal / [s.l : s.n., 2006]. - p 195. - 3 bib ref [Nr. Estr. 3365]

International Congress of the European Society for Veterinary Virology (7. : Lisboa - Portugal : 24-27 September 2006)

Cordioli°P, Moreno°A, Lelli°D, Sozzi°E, Luppi°A , Tranquillo°V, Brocchi°E

Monoclonal antibody-based elisas for the detection of antibodies against neuraminidase subtypes 1, 2 and 3 of influenza viruses

7th International Congress of the European Society for Veterinary Virology : 24-27 September 2006, Lisboa - Portugal / [s.l : s.n., 2006]. - p 40. - 5 bib ref [Nr. Estr. 3364]

International Congress of the European Society for Veterinary Virology (7. : Lisboa - Portugal : 24-27 September 2006)

Costarelli S, Magnino°S, Feliziani F, Mangili PM, Moscati L, Antenucci P

Fissazione del complemento e metodiche ELISA nella diagnosi indiretta di aborto enzootico ovino

Atti Convegno SIPAOC. - Vol. 17 (2006). - p 147. [Nr. Estr. 3497]

Congresso Nazionale Societa' Italiana di Patologia e di Allevamento degli Ovini e dei Caprini (SIPAOC) (17 : Lamezia Terme (CZ) : 25/28 Ottobre 2006)

Negli episodi di aborto che interessano gli allevamenti ovi-caprini la diagnosi sierologica costituisce una valida alternativa alle tecniche diagnostiche dirette che per lo più richiedono materiale fresco, di difficile reperimento. Tra le metodiche sierologiche la Fissazione del Complemento (FdC) per la diagnosi di Aborto Enzootico Ovino (AEO) rappresenta il test ufficiale, raccomandato dall'OIE ed è una delle metodiche più utilizzate e più richieste. Negli ultimi anni tuttavia si sono affermate tecniche alternative, di tipo immunoenzimatico, sicuramente vantaggiose in termini di grandi numeri e di indagine di screening. Scopo del presente lavoro è stato quello di valutare le performances di due tecniche ELISA e del test FdC utilizzati per la diagnosi indiretta di AEO in allevamenti ovis e caprini del territorio regionale umbro. Sono stati effettuati 272 prelievi di sangue da 26 allevamenti ovis e 3 aziende caprine in cui si erano verificati episodi di aborto. I prelievi di sangue sono stati eseguiti non oltre 10—20 giorni dopo l'aborto. I campioni sono stati sottoposti alle tecniche sierologiche previste di routine nei casi di aborto. Tra queste, per la diagnosi di aborto da clamidia, sono stati utilizzati il test di FdC e due metodi immunoenzimatici disponibili in commercio. Il primo (ELISA A) è basato sull'uso di un antigene ricombinante, una proteina di 80-90 kDa, specifica di *C. abortus*, agente eziologico dell'AEO. Il secondo (ELISA B) utilizza come antigene il lipopolisaccaride di membrana della *C. abortus*. Sono stati considerati positivi i campioni con un titolo di Fissazione del Complemento 211:32; l'esecuzione delle due metodiche ELISA ed il valore da attribuire ad ogni campione (positivo, negativo, dubbio) si sono basate sulle indicazioni fornite dalle rispettive ditte. Sono stati considerati sierologicamente positivi quelli reattivi ad almeno due test e, viceversa,

realmente negativi quelli non reattivi ad almeno due test; sono stati esclusi dallo studio, quei sieri risultati dubbi ad almeno uno dei test ELISA. L'analisi statistica dei dati e il calcolo dei parametri è stato effettuato con il software freeware win episcopo. Sono stati individuati 63 sieri realmente positivi e 184 sieri realmente negativi. Due test (FdC e ELISA A) sono risultati molto specifici e poco sensibili mentre l'ELISA B è risultata più sensibile che specifica. L'indice di Youden è risultato più alto per il test FdC, e più basso per i test ELISA. La concordanza tra diversi test, calcolata attraverso il test Kappa, è risultata appena soddisfacente tra FdC ed ELISA A, insoddisfacente tra le due metodiche ELISA. Dallo studio effettuato emerge che il test FdC appare come la tecnica più affidabile per la diagnosi indiretta di AEO. Il test ELISA A, basato sull'antigene ricombinante, offre ampie garanzie di specificità, mentre l'altro test immunoenzimatico risulta essere più sensibile. Il test FdC conferma la sua validità nell'impiego diagnostico ed offre anche l'opportunità di valutare una eventuale sierconversione del titolo anticorpale. Il test Elisa, date anche le caratteristiche di praticità, può costituire il mezzo di screening più idoneo negli studi di tipo territoriale che richiedono l'esame di grandi numeri di campioni. Per una diagnosi più corretta potrebbe essere molto utile l'associazione di più test diagnostici.

D'Incau°M, Pacciarini°ML, Zanoni°MG, Alborali°GL, Tagliabue°S

Comparison of liquid and solid culture media for isolation of Mycobacteria

27th Annual Congress European Society of Mycobacteriology : Conference of the European Society of Mycobacteriology, 9th 12th July 2006 / [s.l. : s.n, 2006]. - 3550]

Annual Conference of the European Society of Mycobacteriology (27th : 9th 12th July 2006)

In a routine veterinary diagnostic laboratory a rapid and accurate isolation is essential for prevention and control of mycobacteriosis, especially *Mycobacterium bovis* infection in cattle. In order to reduce time of isolation and identification a liquid culture system has been used and compared with traditional microbiological techniques: since results of several studies indicated that the MGIT 960 system (Becton Dickinson) is a rapid, sensitive, and efficient method for recovery of mycobacteria from human clinical specimen, we have assessed its performance, in a routine veterinary laboratory, in parallel with traditional solid media (Lowenstein-Jensen and Stonebrink). At first, to assess sensitivity, serial ten-fold dilution of reference strains of veterinary interest (*M. bovis* ATCC 19210, *M. avium* ATCC 25291, *M. fortuitum* ATCC 6841) were inoculated in MGIT 960 liquid medium and traditional solid media. MGIT 960 system showed a good performance with reference strains, comparable to that declared by the system manufacturer and, in particular a shorter time of recovery for every dilution of *M. bovis*, with respect to solid media. Results obtained from 1362 routine diagnostic samples analyzed during the years 2003 – 2005 reveals that MGIT 960 system has a better sensitivity and a shorter detection time than solid media for recovery of *M. bovis* and *M. avium*.

D'Incau°M, Pennelli°D, Lavazza°A, Tagliabue°S

Sierotipi di E. coli isolati da specie aviarie in Lombardia ed Emilia Romagna = Serotypes of E. coli isolated from avian species in Lombardia and Emilia Romagna (North Italy)

Ital J Anim Sci. - Vol. 5 no 3 (2006). - p 298-301 - 7 bib ref [Nr. Estr. 3323]

Obiettivo di questo studio era procedere alla sierotipizzazione di ceppi di E. coli isolati da poli e tacchini, allevati nelle regioni Lombardia ed Emilia Romagna, sia in ambiente intensivo che rurale. I ceppi batterici, isolati da tamponi cloacali, sono stati saggiati con n.37 differenti antisieri 0; i risultati ottenuti hanno permesso di mettere in luce una larga prevalenza del sierogruppo 078 sugli altri, in entrambe le specie testate. Degno di nota è il riscontro relativo al numero dei ceppi non tipizzati, dato che concorda con quanto già evidenziato in nostri studi precedenti e confermato anche da risultanze sperimentali di altri autori.

In this paper we report the results of n.105 E. coli strains serotyping, isolated during the period 2000-2004 in Lombardia and Emilia Romagna (North Italy) from avian species (poultry and turkeys), starting from cloacal swabs. The most frequently identified serogroup was 078 both in poultry and turkeys, with a large prevalence over the other detected serogroups. Remarkable was the non typeable percentage among the examined strains, datum which is in accordance with our and other authors previous studies.

Damiani AM, Scicluna MT, Autorino GL, Sala M, Ciabatti G, Cardeti G, Vulcano G, Cordioli°P, Martella V, Amaddeo D

Characterization of equine influenza viruses isolated in Italy from 1999 to 2005

7th International Congress of the European Society for Veterinary Virology : 24-27 September 2006, Lisboa - Portugal / [s.l : s.n., 2006]. - p 78. - 4 bib ref [Nr. Estr. 3363]

International Congress of the European Society for Veterinary Virology (7. : Lisboa - Portugal : 24-27 September 2006)

De_Lorenzi D, Mandara MT, Tranquillo°M, Baroni M, Gasparinetti N, Gandini G, Masserdotti C, Bonfanti U, Bertolini G, Vian P, Bernardini M

Squash-prep cytology in the diagnosis of canine and feline nervous system lesions: a study of 42 cases

Vet Clin Pathol. - Vol. 35 no 2 (2006). - p 208-214 - 40 bib ref [Nr. Estr. 3425]

Background: The increased sophistication of imaging techniques in veterinary medicine allows the detection of a wide variety of intracranial and intraspinal lesions, however, imaging often does not provide a definitive diagnosis for nervous system (NS) lesions. Cytology is emerging as a useful diagnostic tool for obtaining a fast and accurate assesment of NS lesions. but little information is available for dogs and cats.

Obiectives: The purpose of this study was to assess the accuracy of cytologic evaluation of squash samples from NS lesions in dogs and cats and to consider cytology-based diagnostic guidelines and sources of misdiagnosis.

Methods: Cytologic specimens from masses localized in the central and peripheral NS taken during surgery or postmodern examination were classified into 3 groups according to the final histopathologic diagnosis: Gronp 1 = completely correct diagnosis, when the cytologic diagnosis and final histologic diagnosis were exactly corrrlated: Group 2 - partial correlation, when the cytologic diagnosis only partially correlated with the final histologic diagnosis, and Group 3 = no correlation, when the cytologic diagnosis was incorred and there was no correlation with the general histologic type of lesion. The diagnostic accuracy di cytopathology was calculated by considering the histopathologic diagnosis as the "gold standard;" and calculating a 95% confidence interval (CI).

Results: A total of 42 animal (33 dogs and 9 cats) were included in the study. The cytologic diagnosis were classified in Group 1 for 32 casus (76%; 95% CI 0.63-0.89), in Group 2 for 6 cases (14%,95% CI 0.04-0.25), and in Group 3 for 4 cases (10%; 95% CI 0.006-0.18). Considering both complete and partial correlation as an adequate result, cytologic diagnosis was satisfactory in 90% of biopsies. Conclusions: Although the current series of cases is relatively small, cytologic evaluation of squash preparations can be considered a fairly accurate and reliable tool in the diagnosis of NS lesions.

Dekker A, Samin D, Greiner M, Bergmann I, Paton D, Grazioli°S, De_Clercq, Brocchi°E

Comparison of ELISAs for antibodies against foot-and-mouth disease virus non-structural proteins in cattle sera based on the continuous results

European Commission for the Control of Foot-and-Mouth Disease : Open Session of the Research Group of the Standing Technical Committee of the European Commission for the Control of Foot-and-Mouth Disease : International Control of Foot-and-Mouth Disease: Tools, Trends and Perspectives : 16-20 October 2006 Paphos, Cyprus / [s.l : s.n., 2006]. - p 52 [Nr. Estr. 3549]

Session of the Research Group of the Standing Technical Committee of the European Commission for the Control of Foot-and-Mouth Disease : Paphos, Cyprus : 16-20 October 2006)

Introduction: Six tests for antibodies against FMDV non-structural proteins were compared at a workshop in Brescia, Italy in 2004 using dichotomous results. Continuous results were also available from the validation study, therefore we extended the comparison by using ROC analysis and estimation of the likelihood ratio using these data. Materials and Methods: From the dataset 1337 sera were selected, 1100 from non infected cattle and 237 from infected cattle. In the analysis the sera from infected cattle were considered true positive and from non-infected cattle as true negative. Using the results we produced ROC curves and computed the likelihood ratio for each possible result. Results: ROC analysis showed that the IZS-Brescia and the Ceditest ELISA had a significantly higher sensitivity than the other commercial ELISAs at 99% specificity. The NCPanaftosa ELISA and Svanovir ELISA had a comparable sensitivity at 97.5 and 95% specificity. The likelihood ratio analysis provides information for each test on the likelihood ratio for a positive result. However the various tests produced different likelihood ratio's when used on the same serum. Discussion: The ROC analysis confirms the previous finding that the IZS-Brescia and the Ceditest ELISA have both a high sensitivity combined with a high specificity. The specificity of all screening ELISAs can be increased by the use of the Panaftosa confirmatory western blot technique, in which case a cut-off with a higher sensitivity can be selected. The analysis of the likelihood ratios provides information which can be used in decision making, but the results should be interpreted with caution. Titration of sera will probably provide more consistent results. Discussion: The ROC analysis confirms the previous finding that the IZS-Brescia and the Ceditest ELISA have both a high sensitivity combined with a high specificity. The specificity of all screening ELISAs can be increased by the use of the Panaftosa confirmatory western blot technique, in which case a cut-off with a higher sensitivity can be selected. The analysis of the likelihood ratios provides information which can be used in decision making, but the results should be interpreted with caution. Titration of sera will probably provide more consistent results.

Di_Francesco A, Baldelli R, Cevenini R, Magnino°S, P ignanelli S, Salvatore D, Galuppi R, Donati M

Seroprevalence to chlamydiae in pigs in Italy

Vet Rec. - Vol. 159 no 25 (2006). - p 849-850. - 23 bib ref [Nr. Estr. 3499]

Donati M, Accardo S, Marangoni A, Benincasa M, Moroni A, Di_Francesco A, Magnino°S, Gennaro R, Derenzini M, Cevenini R

Activity of Cathelicidin peptides against human and animal Chlamydia

15th Mediterranean Congress of Chemotherapy : 25-27 June, Catania : programme and abstract book / [Catania : Mediterranean Society of Chemotherapy, c2006]. - p 34 [Nr. Estr. 3503]

Mediterranean Congress of Chemotherapy (15th : Catania, Italy : 25-27 June, Catania)

The in vitro activity of six cathelicidin peptides against 35 Chlamydia strains was investigated. Human (*C.trachomatis* and *C.pneumoniae*) and animal (*C.psittaci*, *C.felis*, *C.suis*, *C.abortus*) chlamydiae were studied. Chlamydial strains were grown in LLC-KM2 cells and elementary bodies (EBs) purified by sucrose gradient. The cathelicidin peptides were synthesized by the solid phase method using Fmoc chemistry. After purification by reversed-phase HPLC the peptides were lyophilized and stored at CC. Peptides were twofold diluted in test tubes containing P135 and a total volume of 0.15 ml of a suspension of purified EBs in SPG medium was added to the tube. The suspensions were incubated at room temperature for 2 hours and inoculated onto LLC-MK2 cells. After incubation, cells cultures were fixed and stained with fluorescein-conjugated monoclonal antibody reactive with the chlamydial specific genus antigen. A different sensitivity of chlamydiae to cathelicidin peptides was observed. *C.trachomatis* was the most sensitive of chlamydiae and SMAP-29 was the most active peptide. The treatment of *C.trachomatis* EBs with SMAP-29 reduced by over

50% the inclusion number of all the 10 strains test-ed, at a concentration of 10 microgram/ml. BMAP-27, BMAP-28 and Bac7 displayed a similar activity at a concentration of 80 microgram/ml. In contrast, LL-37 did not exert any inhibitory activity and PG-1 was only active against serotypes D, H and LGV2. *C.pneumoniae* strains (n° test-ed = 5) were sensitive only to SMAP-29 at a concentration of 10 microgram/ml. Chlamydia strains of animal origin (n° tested = 20) were generally not susceptible to cathelicidins, with the exception of *C.suis* that was sensitive to SMAP-29 at a concentration of 20 microgram/ml and four strains of *C.felis* sensitive at 80 microgram/ml. Electron microscopy analysis of *C.trachomatis* EBs treated with SMAP-29 showed striking morphological changes of EBs with the loss of their integrity, the appearance of amorphous and membranous material (and empty vesicles). In conclusion, Chlamydia showed a different susceptibility to the peptides, with *C.trachomatis* resulting by far more sensitive to antimicrobial peptides than chlamydiae isolated from animals and SMAP-29 was the most active peptide. *C.suis* strains proved to be little less sensitive to cathelicidin peptides than *C.trachomatis*. The similarities observed between *C.trachomatis* and *C.suis* in relation to sensitivity against antimicrobial peptides confirm the strict correlation between these chlamydial species.

Donati M, Renzi M, Magnino S, Di_Francesco A, Rinieri G, Pignanelli S, Cevenini R

In vitro detection of neutralizing antibodies to Chlamydophila psittaci in pigeon sera with a microneutralization test

Proceedings of the Fourth Annual Workshop of COST Action 855 Animal Chlamydioses and Zoonotic Implications : diagnosis, pathogenesis and control of animal chlamydioses : Edinburgh, Midlothian Scotland, Uk 3rd-5th September 2006 / edited by David Longbottom, Mara Rocchi. - [Edinburgh, Midlothian Scotland, Uk : COST Action 855 Animal Chlamydioses and Zoonotic Implications, c2006]. - p 113-114 [Nr. Estr. 3491]

Annual Workshop of COST Action 855 Animal Chlamydioses and Zoonotic Implications (4 : Edinburgh, Midlothian Scotland, Uk : 3rd-5th September 2006)

Dottori M

Monitoraggio delle patologie respiratorie al macello suinicolo = The use of slaughter house lung score for the assessment of respiratory disease in swine

Atti del XXIX Corso in patologia suina e tecnica dell'allevamento : Brescia, 04 Ottobre - 13 Dicembre 2005 / a cura di Loris Alborali e Maddalena De_Cillà. - Brescia : Fondazione Iniziative Zooprofilattiche e Zootecniche, 2006. - (Atti delle Giornate di Studio Fondazione Iniziative Zooprofilattiche e Zootecniche ; 64) p 153-158 [Nr. Estr. 3375]

Corso in patologia suina e tecnica dell'allevamento (29 : Brescia : 04 Ottobre - 13 Dicembre 2005)

Le tecniche ispettive attuate in catena di macellazione, debitamente integrate dalle informazioni cliniche e anamnestiche, consentono di raccogliere molti dati sulle patologie respiratorie che si sono verificate in allevamento. Un'attenta valutazione, coadiuvata da una opportuna elaborazione statistica, fornisce elementi utili ad individuare strategie migliorative dello stato sanitario e del management.

Monitoring lesions at slaughtering by standardized inspection techniques and integration of results with anamnestic and clinical records permit the collection of large amount of data about herd respiratory diseases. A careful interpretation of reports including statistical considerations provides many useful tools for implementation of strategies for herd sanitary status and management improvement.

Dottori M, Gusmara C, Leotti G, Ostanello F, Sala V

Correlation between severity of Mycoplasma hyopneumoniae lung lesions and carcass

quality in italian heavy weight pigs

International Pig Veterinary Society : the 19th Congress (IPVS) : 16-19 July 2006 Copenhagen, Denmark : proceedings / [Copenhagen : International Pig Veterinary Society, c2006]. - cdrom p 217. - 7 bib ref [Nr. Estr. 3505]

International Pig Veterinary Society Congress (IPVS) (19th : Copenhagen, Denmark : 16-19 July 2006)

Dottori° M, Gusmara C, Leotti G, Ostanello F, Sala° V

Mycoplasma hyopneumoniae disease assessment and identification of risk factors through the evaluation of the lung-score un the italian heavy weight pigs

International Pig Veterinary Society : the 19th Congress (IPVS) : 16-19 July 2006 Copenhagen, Denmark : proceedings / [Copenhagen : International Pig Veterinary Society, c2006]. - cdrom p 216. - 3 bib ref [Nr. Estr. 3504]

International Pig Veterinary Society Congress (IPVS) (19th : Copenhagen, Denmark : 16-19 July 2006)

Fenati M, Guberti V, Staubach C, Rutili D, Zanardi° G

Alcune considerazioni epidemiologiche sulla peste suina classica nel cinghiale (Sus scrofa)

Medicina umana, medicina veterinaria e tutela dell'ambiente: possibili sinergie in sanità pubblica : riassunti : Istituto Superiore di Sanità Roma, Perugia 12-13 Giugno 2006 / a cura di Gaia Scavia ... [et al.]. - Roma : Istituto Superiore di Sanità, 2006. - (ISTISAN congressi ; 06/C4) p 64 [Nr. Estr. 3554]

Workshop nazionale di epidemiologia veterinaria : Perugia : Perugia 12-13 Giugno 2006)

La Peste Suina Classica (PSC) rappresenta un problema sanitario ad elevato impatto zoeconomico in cui le popolazioni di cinghiale (*Sus scrofa*) che vivono allo stato libero sembrano fungere da serbatoi epidemiologici dell'infezione. La persistenza della PSC nel cinghiale in alcune aree dell'Europa centro-settentrionale evidenzia una sostanziale difficoltà nella gestione della malattia legata in particolare all'estrema plasticità ecologica della specie, alle scarse informazioni scientifiche riguardo la corrispondenza con l'infezione nel maiale (durata della viremia, presenza di portatori cronici, ecc.) e infine all'applicazione di interventi gestionali non sempre razionali. Scopo del presente lavoro è descrivere e approfondire alcuni aspetti epidemiologici della PSC nel cinghiale attraverso l'analisi di recenti epidemie che hanno interessato l'Italia (provincia di Varese), la Germania e il Lussemburgo. Le stime del coefficiente di trasmissione (β), che definisce la contagiosità del virus, non differisce in maniera sostanziale per le tre aree considerate confermando l'estrema omogeneità delle caratteristiche intrinseche al virus nelle differenti popolazioni studiate: Varese: 0,05652 (IC95%: 0,0502-0,0623); Germania: 0,06326 (IC95%: 0,0596-0,0677); Lussemburgo: 0,05863 (IC95%: 0,0335-0,0765). L'analisi dei parametri di infezione è stata poi ampliata al calcolo del tasso riproduttivo di base (RO) e della densità soglia di estinzione (Nt), che misurano rispettivamente la potenzialità per un agente patogeno di invadere una popolazione completamente sana e il numero minimo di individui suscettibili necessario perché il patogeno possa persistere nella stessa (endemia). La stima di RO fornisce valori che differiscono tra le popolazioni in maniera proporzionale alle rispettive densità, mentre la soglia di estinzione (Nt) risulta simile nelle differenti aree considerate ed è compresa tra 0,93 cinghiali/Kmq (IC95%o: 0,87-0,99) e 1,04 cinghiali/Kmq (IC95%: 0,96-1,17). I risultati ottenuti vengono discussi e integrati con la letteratura disponibile definendo alcune ipotesi epidemiologiche e gestionali.

Ferrari° M

Lo xenotrapianto: strategia terapeutica, ma rischio zoonotico

Obiet Docum Vet. - Vol. 27 no 7/8 (2006). - p 33-45. - 34 bib ref [Nr. Estr. 3295]

La rassegna prende in esame la complessa problematica dello xenotrapianto, inteso in senso lato come trapianto fra soggetti di specie diversa e rappresenta una delle possibili soluzioni mediche alla carenza di donazioni omospecifiche. È descritta l'evoluzione delle metodologie legate allo xenotrapianto e ne sono messe in evidenza le prospettive applicative. Viene altresì posto l'accento circa il rischio zoonosico legato all'impiego di cellule e organi di origine animale.

Ferrari^o M, Petrini S, Ramadori G, Corradi A, Lombardi^o G, Borghetti P, Villa^o R, Bottarelli E, Guercio A, Amici A

Prove di innocuità ed efficacia di quattro vaccini DNA nei confronti del virus erpetico del bovino tipo 1 eseguite sul vitello = Evaluation of safety and efficacy of four DNA vaccines against bovine herpesvirus type 1 in calves

SISVET XV Annual Meeting / 2006. - p 149-150. - 6 rif bib [Nr. Estr. 3350]

SISVET Annual Meeting (15 : Terrasini (PA) : 27-30 Settembre 2006)

In this study three; plasmids expressing a truncated secreted form of the glycoprotein D (tgD), an ubiquitination signal and a CpG sequence, have been constructed. The plasmids were combined and four vaccines against Bovine herpesvirus-1 (BHV-1) have been prepared (A, B, C, D). The only calves group given the vaccine B (composed of tgD plus the adjuvant plasmid with CpG sequence) developed neutralizing antibodies to BHV-1 as well as mucosal IgA. Similarly, cell-mediated immunity was detected only in animals which had been exposed to the same of product. No humoral and cell mediated response was observed in calves injected with the other plasmid types.

Ferrari^o M, Petrini S, Ramadori G, Gregori^o A, Corradi A, Villa^o R, Lombardi^o G, Borghetti P, Bottarelli E, Bonati L, Amici A

Inoculation of two plasmid types encoding for PRRS virus ORF4 and ORF5 in pigs

International Pig Veterinary Society : the 19th Congress (IPVS) : 16-19 July 2006 Copenhagen, Denmark : proceedings / [Copenhagen : International Pig Veterinary Society, c2006]. - cdrom p 26. - 5 bib ref [Nr. Estr. 3502]

International Pig Veterinary Society Congress (IPVS) (19th : Copenhagen, Denmark : 16-19 July 2006)

Ferrari^o M, Petrini S, Ramadori G, Gregori^o A, Corradi A, Villa^o R, Lombardi^o G, Borghetti P, Bottarelli E, Bonati L, Amici A

Valutazione delle caratteristiche immunologiche ed efficacia protettiva di due tipi di plasmidi codificanti le glicoproteine GP4 (ORF 4) e GP5 (ORF 5) del virus PRRS = Evaluation of the immunogenicity and efficacy of two plasmid types encoding for prrs virus GP4 (ORF 4) and GP5 (ORF 5)

Atti Convegno SIPAS. - Vol. 32 (2006). - p 207-211. - bib ref 7 [Nr. Estr. 3527]

Meeting annuale della Società Italiana di Patologia ed Allevamento dei Suini : Modena, 23-24 Marzo 2006. Comunicazioni scientifiche (32. : Modena : 23-24 Marzo 2006)

Il controllo dell'infezione della PRRS può essere attuato mediante il ricorso a vaccini attenuati ed inattivati commercialmente disponibili, ma risultati in grado di conferire una protezione incompleta nei confronti del virus virulento. Obiettivo dell'indagine svolta è stata la valutazione della possibile applicazione, quale strategia alternativa, della vaccinazione con DNA plasmidico (vaccinazione genetica). A tal fine, la fase attuale ha riguardato la valutazione di due differenti plasmidi derivati dal

vettore pVAXI e codificanti ORF4 e ORF5 del virus della PRRS. Gruppi di suini inoculati con i plasmidi e corrispondenti soggetti di controllo, sono successivamente stati infettati sperimentalmente con un ceppo di campo. I risultati hanno evidenziato come i plasmidi selezionati non siano stati in grado di proteggere dalla malattia ed abbiano stimolato soltanto una risposta immunologica di tipo cellulo-mediata.

Control of PRRS infection can be carried out by using live-attenuated and inactivated vaccines marketed by different Companies. However, they have been resulted capable of inducing an incomplete protection against the infection. The aim of the study conducted has been the evaluation of the potential use, as alternative strategy, of DNA plasmid vaccination (genetic vaccination). According to that, two different plasmids, derived from pVAXI vector encoding the PRRSV ORF's 4 and 5, have been tested. In a subsequent time, pig groups injected with the selected plasmids and the control groups have been challenged with a virulent virus. The results show that the DNA plasmids didn't protect against the experimental infection with a virulent PRRSV strain and that only a cell mediate immune response was stimulated.

Ferrari°M, Villa°R

Xenotrapianti : rischio zoonosico

Dalla eradicazione alla gestione del rischio zoonosico : Cinquantesimo della Fondazione Iniziative Zooprofilattiche e Zootecniche, 14 Dicembre 2005, Brescia / edito a cura della Fondazione Iniziative Zooprofilattiche e Zootecniche. - Brescia : Fondazione Iniziative Zooprofilattiche e Zootecniche, 2006. - (Atti delle Giornate di Studio Fondazione Iniziative Zooprofilattiche e Zootecniche ; 62) p 47-63. - 36 bib ref [Nr. Estr. 3373]

Ferris NP, King DP, Reid SM, Hutchings GH, Shaw AE, Paton DJ, Goris N, Haas B, Hoffmann B, Brocchi°E, Bugnetti°M, Dekker A, De Cler cq K

Foot-and-mouth disease virus : a first inter-laboratory comparison trial to evaluate virus isolation and RT-PCR detection methods

Vet Microbiol. - Vol. 117 (2006). - p 130-140. - 27 bib ref [Nr. Estr. 3346]

Five European reference laboratories participated in an exercise to evaluate the sensitivity and specificity of their routinely employed RT-PCR tests and cell cultures for the detection and isolation of foot-and-mouth disease (FMD) virus. Five identical sets of 20 coded samples were prepared from 10 vesicular epithelia, which were derived from submissions from suspect cases of FMD or swine vesicular disease (SVD). Sixteen samples were derived from six FMD virus positive epithelia representing four different serotypes (two each of types O and A and one each of types Asia 1 and SAT 2), two from samples which had been found to be negative by antigen ELISA and virus isolation (VI) in cell culture and two from SVD virus positive epithelia. Some of the FMD virus positive samples were prepared from 10-fold serial dilutions of three of the initial suspensions. Each laboratory tested the samples by one or more of its available RT-PCR procedures and inoculated cell cultures that it routinely uses for FMD diagnosis in attempts to isolate virus, the specificity of which was confirmed by antigen ELISA. The best of the RT-PCR assays used in each laboratory gave comparable results while the sensitivity of cell cultures was variable from high in one laboratory. moderate in two and low in two others. This prototype panel of samples would appear suitable for external quality assurance of these tests but would benefit from the inclusion of more negative samples and an extension in the serial dilution range of one or more of the FMD positive sample titration series.

Franco A, Lovari S, Donati V, Cordaro G, Di_Matteo P, Ricci A, Merialdi°G, Magistrali C, Battisti A

Zoonotic thermotolerant Campylobacter from food animals: antimicrobial resistance monitoring in Italy, 2004

2nd Annual General Meeting Med-Vet-Net : abstract book, 3 - 6 May 2006, Malta / [s.l. : s.n., 2006]. - p 45 [Nr. Estr. 3271]

Annual General Meeting Med-Vet-Net (2nd : Malta : 3 -6 May 2006)

Campylobacter jejuni and *C. coli* are considered the leading cause of acute diarrhoeal disease in humans in Europe and in the World. Food of animal origin are the most important source of infection for humans. Antimicrobial resistance in these zoonotic agents has emerged mainly as consequence of antimicrobial usage in food animal productions.

In the last decade, concerns have been raised about the emergence and increase of macrolide, fluoroquinolone and aminoglycoside resistance in zoonotic *Campylobacter* in animal productions, as these are the drugs of choice for *Campylobacter* enteritis and systemic infections in humans. In this paper we present the frequency of resistance in *C.jejuni* and *C.coli* in the animal species included in the Italian veterinary monitoring program (ITAVARM) and the Minimum Inhibitory Concentration (MIC) distributions obtained with an international consensus panel of drugs (ARBAO II). The highest percentages of resistance are observed in *C. coli*, as this species has probably a greater attitude to become resistant to various drugs than *C.jejuni*. In some food animal species (cattle, swine and poultry), significant levels of resistance are observed for quinolones (Qs) and fluoroquinolones (FQs), both in *C.coli* (e. g. 69/113, 61.1 % for Qs and 67/113, 59.3% for FQs in poultry) and in *C.jejuni* (76/147, 51.7% for Qs, 74/147, 50.3% for FQs in poultry), and for macrolides, with the highest percentages in *C.coli* isolates of swine origin (33179, 41.8% in pigs; 181113, 15.9% in poultry). Pig isolates of *C. coli* are generally more resistant than the isolates from poultry, except for Qs and FQs. The lowest levels are observed in sheep. The frequency of aminoglycoside resistance is generally low.

Gaffuri°A

Detection and genotyping of Mycobacterium tuberculosis complex in lymph nodes of wild boar (*Sus scrofa*) population in Lombardy Region

Wildlife Reservoirs of Mycobacterial Infections : 13th-16th September 2006, Toledo, Spain : WP7 Workshop / Organized by Laboratory of Sanitary Surveillance : Faculty of Veterinary Medicine Universidad Complutense. - [s.l. : VENO MIC, 2006]. - p 24 [Nr. Estr. 3565]

Workshop of "Wildlife Reservoirs of Mycobacterial Infections" : Veterinary Network of Laboratories Researching into Improved Diagnosis and Epidemiology of Mycobacterial Diseases (VENOMIC) (WP9 : Dublin, Ireland : 13th-16th September 2006)

Introduction: The presence of *Mycobacterium tuberculosis* complex (MtbC) in wild boar has been reported in several European countries. In Italy there isn't any compulsory control program of tuberculosis in wildlife, as well as for other infectious diseases. But in some regions, like in Valle d'Aosta, Piemonte, Liguria, Lombardia, Marche and Umbria, local monitoring programs are done. Our study was carried out in Lombardia, Northern Italy, in particular in Varese, Como and Bergamo territories where a sanitary control program has been performed for eight years, in order to estimate the presence of infectious and parasitic diseases. In this area in the last twenty years, wild ungulates, either naturally or due to management reasons, increased and expanded their geographical range. In particular wild boar population has grown as a consequence of changes in land use, illegal translocation and different game management. In the study areas, which cover about 1,450 km², there are about 2,500 wild boar and other free-ranging species such as red deer (*Cervus elaphus*) and Roe deer (*Capreolus capreolus*). Livestock partially shares pastures with wild animals and contact between wild boar and domestic animals may occasionally occur. Materials: Samples were collected during hunting seasons by hunters. Six hundreds and fifteen head lymph nodes were collected in the last six years and examined by macroscopic inspection. Among these, one hundred and fifty were selected for analysis; most of them presented tuberculosis-like lesions. Most of the lesions were characterised by small, rounded, necrotic, calcified foci. The samples were analyzed by cultural isolation and by a PCR test specific for detection of MtbC. Methods: One aliquot was submitted to culture isolation by traditional solid media (LJ-ST) and MGIT960 liquid culture system (Becton Dickinson); in case of positive isolation mycobacteria were identified by

molecular and bacteriological tests. One aliquot was submitted to DNA extraction and to a PCR assay based on detection of IS6110 DNA target. In case of samples positive to "IS6110 PCR assay" and negative to culture isolation, we attempted direct identification of MtbC mycobacteria on tissue samples DNA by molecular tests.

Gaffuri° A, Giacometti M, Tranquillo° M, Magnino° S, Cordioli° P, Lanfranchi P
Serosurvey of roe deer, chamois and domestic sheep in the Central Italian Alps

J Wild Dis. - Vol. 42 no 3 (2006). - p 685-690. - 26 bib ref [Nr. Estr. 3357]

Roe deer (*Capreolus capreolus*), chamois (*Rupicapra rupicapra rupicapra*), and domestic sheep in the Orobic Alps, Italy, were serologically tested for antibodies to selected pathogens that may be transmitted across species. Antibodies against *Brucella* spp. and bovine herpesvirus 1 (roe deer and chamois only) were not detected in any species. In roe deer, antibodies were detected against *Toxoplasma gondii* (13%) and *Neospora caninum* (3%). Chamois tested positive for antibodies to *T. gondii* (5%), *N. caninum* (21%), bovine respiratory syncytial virus (BRSV) (41%), bovine parainfluenza type-3 virus (17%), pestiviruses (18%), and *Mycoplasma conjunctivae* (17%). In the sheep, particularly high antibody prevalence rates were found for *T. gondii* (78%), *Chlamydia* spp. (20%), pestiviruses (90%), BRSV (82%), and *M. conjunctivae* (81%).

Gaffuri° A, Magnino° S, Pelliccioli L, Vicari° N, Bertolotti° I, Gelmetti° D

Evidence of respiratory syncytial virus infection in a chamois (*Rupicapra r. rupicapra*) population in the Italian Central Alps

VII Conference of the European Wildlife Disease Association: 27th - 30th September 2006 Aosta Valley, Italy / [s.l. : s.n., 2006]. - 3545]

European Conference European Section, Wildlife Disease Association (7th : Aosta Valley, Italy : 27th - 30th September 2006)

AIM OF THE STUDY: Since 1999 a high seroprevalence against Respiratory Syncytial Virus (RSV) has been demonstrated in a chamois population of the Orobic Alps (Central Alps, Italy), and during 2000-2001 an outbreak of severe respiratory disease with high mortality was observed among the chamois. The aim of this study is to investigate the aetiology of pulmonary distress and the relationship with the evidence of circulation of RSV. **MATERIALS & METHODS:** From Autumn 2000 to Autumn 2005, 29 carcasses and 99 lungs of hunted chamois were necropsied. Most of the lung samples were submitted for bacteriological and virological examinations, and 22 were fixed in formalin. Serial sections of 4mm were stained with H E and incubated with mAb 1G3 raised against bovine RSV (BRSV); 11 were analysed by PCR with a protocol aimed at the detection of both BRSV and ovine respiratory syncytial virus (ORSV). **RESULTS:** Macroscopically, intralobular haemorrhages, red areas of consolidation and bronchopneumonia were observed in the lung samples. Histologically, verminous pneumonia, catarrhal bronchopneumonia and bronchiolitis were detected in all samples. Occasionally, syncytial giant cells were present in the respiratory epithelium. Fifteen out of 22 samples were positive by immunohistochemistry (IHC) for RSV. The positive reaction was mainly localised in the cytoplasm of bronchial epithelial cells and in the macrophages. All samples were negative by the PCR test. **CONCLUSIONS:** In the study area, RSV is involved in both acute and fatal respiratory disease of the chamois and in the chronic lesions as well. As the chamois and sheep flocks (where a seroprevalence of 82% against RSV has been found) share the same habitats during summer pasturing, an interspecies transmission of RSV can be speculated. The negative results of the PCR test could be due to the presence of a virus different from BRSV and ORSV and/or to the prolonged storage of the samples (> 3 years) before testing.

Gelmetti°D, Meroni°A, Brocchi°E, Koenen F, Cammara ta G

Pathogenesis of encephalomyocarditis experimental infection in young piglets: a potential animal model to study viral myocarditis

Vet Res. - Vol. 37 (2006). - p 15-23. - 41 bib ref [Nr. Estr. 3285]

The pathogenesis of encephalomyocarditis (ENIC) due to the ENIC virus (EMCV) was studied in 24 piglets oro-nasally infected with the field isolate B279/95. Two pigs were kept as negative controls and were euthanised at hour 0. The remaining 24 were euthanised every 6 h up to 78-h post infection (hpi). Virus isolation, histological examination and EMCV immunodetection were performed on the spleen, intestine, pancreas, liver, kidneys, heart, lungs, lymph nodes, tonsils and brain. EMCV was isolated at 6-hpi from the intestine and lymph nodes and at 12-hpi from the heart. From 6 to 12-hpi, scattered degenerate myocardiocytes were immunolabelled. Subsequently, myocarditis developed and progressively worsened. Immunopositive reaction in tonsil macrophages, observed in the early stage of infection (6-hpi), suggests that tonsils are the portal of entry, and by mean of wandering macrophages the ENIC virus is then distributed through the body. Afterwards, EMCV-B279/95 replicates intensively in the cytoplasm of myocardiocytes and the acute myocarditis is strictly related to the tropism of these cells. Four pigs died spontaneously. In three animals no post mortem lesions or virus were isolated/detected, although all of them showed mild myocarditis. The experimental infection with EMCV B279,95 indicates: (i) the experimental protocol mimics the individual variability observed in natural disease, (ii) tonsils are the portal of entry of infection and the heart is the target organ, (iii) EMCV provides a valuable animal model for comparative studies on progressive viral myocarditis.

Gozio S, Barigazzi°G, Foni°E, Bacchiocchi F, Chiapponi° C

Determination of minimum inhibitory concentration (MIC) of cefquinome against pathogenic bacteria of the deep respiratory system of pigs

International Pig Veterinary Society : the 19th Congress (IPVS) : 16-19 July 2006 Copenhagen, Denmark : proceedings / [Copenhagen : International Pig Veterinary Society, c2006]. - cdrom p 466. - 11 bib ref [Nr. Estr. 3501]

International Pig Veterinary Society Congress (IPVS) (19th : Copenhagen, Denmark : 16-19 July 2006)

Gozio°S, Cominotti F, Bonilauri°P, Dottori°M, Pog giali M, Vezzali L

The effect of porcilis® app on rearing results and slaughterhouse examinations in a typical heavy pig herd in Northern Italy

International Pig Veterinary Society : the 19th Congress (IPVS) : 16-19 July 2006 Copenhagen, Denmark : proceedings / [Copenhagen : International Pig Veterinary Society, c2006]. - cdrom p 303. - 4 bib ref [Nr. Estr. 3509]

International Pig Veterinary Society Congress (IPVS) (19th : Copenhagen, Denmark : 16-19 July 2006)

Grazioli°S, Moretti°M, Barbieri°I, Crosatti°M, Brocchi°E

Use of monoclonal antibodies to identify and map new antigenic determinants involved in neutralization on FMD viruses type SAT 1 and SAT 2

European Commission for the Control of Foot-and-Mouth Disease : Open Session of the Research Group of the Standing Technical Committee of the European Commission for the Control of Foot-and-Mouth Disease : International Control of Foot-and-Mouth Disease: Tools, Trends and Perspectives : 16-20 October 2006 Paphos, Cyprus / [s.l : s.n., 2006]. - p 45 [Nr. Estr. 3546]

Session of the Research Group of the Standing Technical Committee of the European Commission for the Control of Foot-and-Mouth Disease : Paphos, Cyprus : 16-20 October 2006)

Introduction: The antigenic structure of foot-and-mouth disease viruses (FMDV) of the SAT types was little investigated. Monoclonal antibodies (MAbs) provide a great help to these studies; they also may be valuable diagnostic tools and ideal reagents for highlighting antigenic differences, provided that the target sites and their implication in protection are known. This paper reports on the identification and mapping of neutralising sites in FMDV type SAT 1 and 2 using new panels of MAbs. Materials and Methods: MAbs raised against FMDV SAT1 and SAT2 were characterised by ELISA, Virus neutralisation and Western blotting tests. Mutants resistant to MAb neutralisation (escape-mutants) were generated. Amino acid substitutions in selected escape-mutants were identified by sequencing the coding capsid region. Results: FMDV SAT 1: Escape-mutants reactivity profile and amino-acid substitutions detected lead to identification of four independent antigenic determinants. Seven MAbs identify two separate epitopes in the G-H loop of VP1. Four MAbs react with a site involving positions VP1 181 and V122 72; five MAbs identify a new site, composed by epitopes having a key position at the residue VP3 135, sometimes associated with VP1 179 or 181; a further new site is detected by two MAbs mapping at position 111 of VP1 and involving residues of the VP1 G-H loop. FMDV SAT 2: three strongly neutralising MAbs identify two independent linear sites, one mapped at position VP1 210 and the other at position VP1 154. The latter may be associated with a further mutation at V132 79. Conclusions: The G-H loop of VP1, known as a major antigenic determinant in FMDV types 0, A, C and Asia1, is an immuno-dominant site also in SAT 1 and SAT 2 serotypes. The VP1 C-terminus has also been confirmed as an independent linear site in FMDV SAT 2. Interestingly, two out of three conformational sites detected in SAT 1 virus were never described before: they could represent new major determinants in FMDV or denote a different antigenic structure in this serotype.

Grazioli^oS, Moretti^oM, Gamba^oD, Bugnetti M, Brocchi^oE

Monoclonal antibody-based multiplex ELISA for the detection and typing of the seven serotypes of FMDV

European Commission for the Control of Foot-and-Mouth Disease : Open Session of the Research Group of the Standing Technical Committee of the European Commission for the Control of Foot-and-Mouth Disease : International Control of Foot-and-Mouth Disease: Tools, Trends and Perspectives : 16-20 October 2006 Paphos, Cyprus / [s.l : s.n., 2006]. - p 71 [Nr. Estr. 3548]

Session of the Research Group of the Standing Technical Committee of the European Commission for the Control of Foot-and-Mouth Disease : Paphos, Cyprus : 16-20 October 2006)

Introduction: Antigen-detection ELISA has limited sensitivity compared with Virus Isolation or RT-PCR, but remains the current best tool for FMDV identification and typing in infected cultures (complementing more sensitive assays like Virus Isolation, that must be combined with an identification test) and provides an effective test for the rapid diagnosis of clinical cases. FMDV antigen-detection ELISA may be improved by the replacement of polyclonal antisera with monoclonal antibodies (MAbs), that bring advantages in terms of standardisation, specificity and flexibility. Objective of this paper was the development of a complete set of novel, standardised ELISAs based on selected MAbs for typing of the seven FMD virus types. Materials and Methods: Sandwich ELISAs using different combinations of MAbs as coating and conjugated antibody were designed and analysed for each of the seven FMDV types. Results: MAbs specific for each of six serotypes (FMDV 0, A, C, Asia 1, SAT1, SAT2) and MAbs characterised by different levels of cross-reactivity with 4 to 7 serotypes were evaluated in more than 200 variable combinations of coating and conjugated antibody for the detection of FMDV antigens. Analytical sensitivity, type-specificity and intratypic reactivity were evaluated using supernatants of infected cells as source of antigen. Several MAb combinations for each virus type provided a type-specific strong signal, with a detectability limit of 10⁵ TCID₅₀/ml. Consistently with the characteristics of the MAbs used, some reactions reflected the intra-type antigenic diversity or the intertypes cross-reactivity. Discussion: Prototype of a MAb-based multiplex ELISA for typing of six FMDV types is available; further studies may evaluate the effect of assembling MAbs against different epitopes within each serotypes and include

the analysis of more isolates to cover the antigenic diversity and the analysis of diagnostic performance using clinical samples Investigations for the development of a pan-FMDV detection test also provided promising results.

Guarda E, Alborali°L, Salogni°C, Giovannini°S, Terreni M

Patologia cardiaca e mortalità improvvisa della scrofa = Cardiac pathology and sudden sow mortality

Atti Convegno SIPAS. - Vol. 32 (2006). - p 169-175. - 13 bib ref [Nr. Estr. 3530]

Meeting annuale della Societa' Italiana di Patologia ed Allevamento dei Suini : Modena, 23-24 Marzo 2006. Comunicazioni scientifiche (32. : Modena : 23-24 Marzo 2006)

Studi delle differenti cause di mortalità nella scrofa sono stati condotti in Inghilterra ed in altri Paesi. La patologia cardiaca rappresenta una delle principali causa di mortalità nelle scrofe tanto da essere osservata nel 31 % delle mortalità. Sono presentati i risultati delle indagini anatomo- patologiche, istopatologiche e di laboratorio eseguiti in episodi di mortalità di scrofe seguiti nel periodo 2003, 2004 e 2005. La mortalità era distribuita in tutte le fasi riproduttive anche se il maggior numero dei casi si sono verificati in sala parto. Nel corso dello studio sono stati esaminati 76 cuori di scrofa e sono state evidenziate 80 lesioni cardiache.

The different causes of sow mortality have been investigated by authors in the UK and in other countries. Heart failure has been reported as being among the main causes of death in sow, accounting for up to 31% of mortality. Necropsy and histopathological investigation results in sow died between 2003, 2004 e 2005 are presented. Mortality was distributed between all reproductive cycle, but more cases died in farrowing. During investigation the authors examined 76 sow detecting 80 single and associated lesions.

Guarda F, Tursi M, Alborali°L

Atlante di patologia cardiovascolare degli animali da reddito

Atlante di patologia cardiovascolare degli animali da reddito / a cura di Franco Guarda, Massimiliano Tursi e Loris Alborali. - Brescia : Fondazione Iniziative Zooprofilattiche e Zootecniche, 2006. - (Atti delle giornate di studio Fondazione Iniziative Zooprofilattiche e Zootecniche ; 61) p 1-107 [Nr. Estr. 3266]

Lanzi°G, de_Miranda JR, Boniotti°MB, Cameron GE, La vazza°A, Capucci°L, Camazine SM, Rossi C

Molecular and biological characterization of deformed wing virus of honeybees (*Apis mellifera* L.)

J Virol. - Vol. 80 no 10 (2006). - p 4998-5009. - 77 bib ref [Nr. Estr. 3517]

Deformed wing virus (DWV) of honeybees (*Apis mellifera*) is closely associated with characteristic wing deformities, abdominal bloating, paralysis, and rapid mortality of emerging adult bees. The virus was purified from diseased insects, and its genome was cloned and sequenced. The genomic RNA of DWV is 10,140 nucleotides in length and contains a single large open reading frame encoding a 328-kDa polyprotein. The coding sequence is flanked by a 1,144-nucleotide 5' nontranslated leader sequence and a 317-nucleotide 3' nontranslated region, followed by a poly(A) tail. The three major structural proteins, VP1 (44 kDa), VP2 (32 kDa), and VP3 (28 kDa), were identified, and their genes were mapped to the N-terminal section of the polyprotein. The C-terminal part of the polyprotein contains sequence motifs typical of well-characterized picornavirus nonstructural proteins: an RNA helicase, a chymotrypsin-like 3C protease, and an RNA-dependent RNA polymerase. The genome organization, capsid morphology, and sequence comparison data indicate that DWV is a member of the recently established genus I flavivirus.

Lari A, Lorenzi D, Nigrelli°D, Brocchi°E, Faccini°S, Poli A

Pseudorabies virus in european wild boar from Central Italy

J Wild Dis. - Vol. 42 no 2 (2006). - p 319-324. - 23 bib ref [Nr. Estr. 3203]

Tissue and blood samples were collected from 152 wild boars (*Sus scrofa*) from the Maremma area (Grosseto district, Central Italy) between November 2002 and January 2003. The presence of pseudorabies virus (PRV) antibodies, antigen, and DNA were confirmed by an enzyme linked immunosorbent assay (ELISA), immunohistochemistry and polymerase chain reaction (PCR), respectively. Of 152 animals, 62 (41%) were positive for viral antigen in tonsillar tissue. Of the 80 serum samples that were suitable for testing, 41 (51%) were positive for PRV antibodies. Positive immunohistochemistry results were confirmed by PCR. A significantly higher prevalence of PRV antigen and seroprevalence was detected in older animals. No differences were detected between males and females or for animals coming from different areas sampled. Results confirm that PRV is endemic in this wild boar population with a high prevalence of infection. The results of immunohistochemistry investigations demonstrated that a large number of wild boars harbor PRV in tonsillar tissues and should be considered as an important reservoir of PRV.

Lauzi S, Fabbi°M, Martini M, Bonizzi L

Diagnostic study on Bartonella henselae and Bartonella clarridgeiae infections among italian stray cats living the Venetian coastal region

2nd Annual General Meeting Med-Vet-Net : abstract book, 3 - 6 May 2006, Malta / [s.l. : s.n., 2006]. - 3272]

Annual General Meeting Med-Vet-Net (2nd : Malta : 3-6 May 2006)

Cat scratch disease is a worldwide emerging zoonosis caused predominantly by *Bartonella henselae* and in a lesser extent by *Bartonella clarridgeiae*. Cats are the natural reservoir and vectors for *Bartonella henselae* and *B. clarridgeiae* infections in humans. The prevalence of *Bartonella* infection was evaluated in 89 stray cats living in the Venetian coastal region by bacteremic status, direct PCR amplification of blood samples and serology. Nineteen (21.4%) cats had *Bartonella henselae* bacteremia. Both *B. henselae* type I and type II were identified, with *B. henselae* type II being the more common (63.2%). Coinfection with the two *B. henselae* gene type was also observed (5.3%). Thirty-five (40.7%) cats had *Bartonella* DNA in the blood. *Bartonella clarridgeiae* (31.8%) and coinfection with *B. henselae* and *B. clarridgeiae* (17.1%) were identified by direct PCR amplification of blood samples. Thirty-two (36%) cats were seropositive. A scarce agreement was observed between the different diagnostic methods. The authors propose the use of serology as a first screening of the spread of *Bartonella* in a geographic region. The risk of transmission to humans in an infected area should be further evaluated using blood culture or eventually PCR on blood samples.

Lavazza°A, Capucci°L

Rabbit haemorrhagic disease (RHD)

Recent Adv Rabbit Sci. - Vol. 15 (2006). - p 187-197. - 45 bib ref [Nr. Estr. 3521]

Lavazza°A, Cerioli°M, Brivio R, Zanoni°MG, Grilli G

Risultati preliminari di uno studio per la individuazione di parametri di benessere nell'allevamento cunicolo lombardo

8° Congresso Nazionale Multisala SIVAR. Palazzo Tre cchi, Cremona 12-13 Maggio 2006 / [Cremona : Societa' Italiana Veterinari per Animali da Reddito, 2006]. - p 45 [Nr. Estr. 3523]
Congresso Nazionale Multisala SIVAR (8 : Cremona : 12-13 Maggio 2006)

Lelli°D, Cordioli°P, Moreno°A, Gamba°D, Sozzi°E, Brocchi°E

Antigen typing ELISAs for Neuraminidase N1, N2, N3 and N7 of avian influenza viruses using monoclonal antibodies

7th International Congress of the European Society for Veterinary Virology : 24-27 September 2006, Lisboa - Portugal / [s.l : s.n., 2006]. - p 194 - 2 bib ref [Nr. Estr. 3367]

International Congress of the European Society for Veterinary Virology (7. : Lisboa - Portugal : 24-27 September 2006)

Leotti G, Nigrelli°A, Prevedi G, Zamperlin D

Alternative vaccination schemes against Mycoplasma hyopneumoniae in pigs reared for italian D.O.P. ham production

19th IPVS International Pig Veterinary Society congress : Copenhagen, Denmark 2006 : proceedings, volume 1 / [s.l : s.n, c2006]. - cdrom p 139. - 2 bib ref [Nr. Estr. 3495]

International Pig Veterinary Society Congress (IPVS) (19th : Copenhagen, Denmark : 2006)

Lombardi°G, Losio°N, Torcoli°G, Boni°P, Barbieri °I, Pavoni°E, Lavazza°A, Cardeti G, Luppi°A, Cordioli°P

Molecular identification of hepatitis E Virus (HEV) in swine faeces and experimental infection in SPF pigs

7th International Congress of the European Society for Veterinary Virology : 24-27 September 2006, Lisboa - Portugal / [s.l : s.n., 2006]. - p 203 - 4 bib ref [Nr. Estr. 3369]

International Congress of the European Society for Veterinary Virology (7. : Lisboa - Portugal : 24-27 September 2006)

Loria GR, Giardina P, Piraino C, Di_Marco P, Monteverde V, Schiavo MR, Tamburello A, Sparacino L, Ferrari°M, Scanziani E, Ca racappa S, Nicholas RAJ

"Polmonite atipica" : risultati preliminari di uno studio in ovini siciliani

Atti Convegno SIPAOC. - Vol. 17 (2006). - p 165. [Nr. Estr. 3498]

Congresso Nazionale Societa' Italiana di Patologia e di Allevamento degli Ovini e dei Caprini (SIPAOC) (17 : Lamezia Terme (CZ) : 25/28 Ottobre 2006)

Le infezioni da micoplasmi delle pecore e delle capre spesso si manifestano clinicamente come sindromi respiratorie; tra quelle considerate a rischio epidemico per l'economia zootecnica alcune, come la CCPP (inclusa nella Lista B dell'OIE), sono riconosciute universalmente, altre sono ancora discusse sul piano della reale patogenicità dell'agente eziologico (Loria et al., 2004). Mycoplasma ovipneumoniae è considerato ancora un specie opportunistica del tratto respiratorio e genitale di pecore e capre anche se alcuni autori lo identificano, in associazione con il virus della Parainfluenza 3 (P13) e con Mannheimia (Pasteurella) haemolytica, come agente primario di una forma di polmonite "atipica" degli ovini (Jones and Gilmour, 1983). Non si possiedono attualmente dati significativi sull'importanza epidemiologica di M.ovipneumoniae anche perché raramente viene indagato nella routine di laboratorio. Maggiore attenzione viene infatti rivolta ai patogeni respiratori più facilmente identificabili come Mannheimia e Pasteurella. Questo micoplasma è stato isolato sporadicamente in Sicilia da focolai di mortalità acuta in agnelli (Loria comunicazione personale,

2000) e si conosce poco della sua reale importanza sanitaria in Italia nonostante in altri paesi sia già considerata una patologia emergente causa di sindromi respiratorie tra cui la "coughing disease" (McAuliffe et al., 2003). Durante le procedure di ispezione sanitaria al macello, sono stati controllati un totale di 987 agnelli, allevati in Sicilia, di età compresa tra 1 e 3 mesi. Una volta identificati i soggetti con lesioni polmonari si procedeva all'esame batteriologico, alla ricerca di micoplasmi come descritto da Nicholas e Baker (1998) ed alla identificazione dei ceppi mediante indagini biomolecolari (McAuliffe et al., 2003). La ricerca prevedeva ulteriori esami virologici su colture cellulari per la ricerca di virus PI3 ed lo studio istopatologico delle lesioni. L'indagine finora effettuata ha individuate una prevalenza di soggetti con lesioni polmonari e relativo isolamento di micoplasmi in n°28 casi (3 %). Tutti i ceppi saggiati con la PCR hanno confermato esclusivamente la presenza di *M. ovipneumoniae*. Nel 70% dei casi è stata registrata una coinfezione da *Mannheimia* (*Pasteurella*) *haemolytica* e *P. trehalosi*. Tutti i soggetti in cui è stato isolato *M. ovipneumoniae* presentavano all'esame macroscopico differenti gradi di consolidamento polmonare (epatizzazione rossa e grigia) relativa ai lobi apicali e medi, linfonodi edematosi ed aumentati di volume. Nel 90% dei casi la lesione riguardava entrambi i polmoni. Gli esami istopatologici hanno evidenziato congestione, edema, severa infiltrazione di linfociti e macrofagi, iperplasia linfoide, depositi di fibrina negli spazi interstiziali. Gli esami virologici hanno evidenziato sino ad ora stipiti virali in n°3 casi anche se ulteriori indagini sono ancora in corso. Tale rapporto preliminare conferma, al momento, le esperienze effettuate da altri autori relativamente alla eziologia complessa della polmonite atipica (Alley et al., 1999).

Loria GR, Tamburello A, Catania S, Sparacino L, Scanziani E, Ferrari°M, Luini°M, McAuliffe L, Nicholas J

Tipizzazione molecolare di ceppi di *Mycoplasma bovis* da bovini con polmonite in Italia =
Molecular typing of *Mycoplasma bovis* strains from pneumonic cattle in Italy

VIII Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) : Perugia, 9-10 Novembre 2006 : volume degli atti / [s.l. : Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV), 2006]. - p 41-42. - 4 bib ref [Nr. Estr. 3339]

Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) (8. : Perugia : 9 -10 Novembre 2006)

Molecular typing using RAPD was performed on strains of *Mycoplasma bovis* isolated from Italy; two strains of *M. agalactiae* were also included. The technique, which is simple and robust, classified the 13 strains into three major groups at the 60% similarity level containing approximately similar numbers of strains. Interestingly the Italian strains showed much closer similarity to the small ruminant *M. agalactiae* type strain than to the USA derived *M. bovis* type strain. Two strains of *M. bovis* were very similar to the type strain and two field strains of *M. agalactiae* and were included in the third subcluster. In a comparison with other European *M. bovis* strains, the Italian strains were classified within cluster B which are believed to represent ancestral European strains. RAPD may offer a useful method of tracing strains within Italy.

Losio°MN, Pavoni°E, Zanni°I, Fata°R, Fallacara° F, Barbieri°I, Luppi°A, Lavazza°A, Lombardi°G, Cordioli°P, Boni°P

Identificazione e caratterizzazione molecolare del virus dell'epatite E (HEV) in campioni di feci di suino

VIII Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) : Perugia, 9-10 Novembre 2006 : volume degli atti / [s.l. : Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV), 2006]. - p 45-46. - 5 bib ref [Nr. Estr. 3337]

Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) (8. : Perugia : 9 -10 Novembre 2006)

Hepatitis E virus (HEV) is a RNA virus causing a self-limiting Hepatitis transmitted primarily by oro-faecal route. Swine and human HEV strains from the same geographical region often appear to be genetically closely related. The aim of this study was to investigate the presence of HEV in the stool samples of 2-4-month-old pigs and to verify the ability of the virus to infect susceptible pigs. The results showed 17 PCR-positive samples, and in the challenge infection positive swabs were found between the 4th and 18th post infection (PI) day. Sera showed seroconversion from the 3rd to the 6th week PI.

Losio^oMN, Suffedrini E, Pavoni^oE, Fallacara^oF, Arcan geli G, Croci L

Monitoring for the presence of norovirus in Italian shellfish

2nd Annual General Meeting Med-Vet-Net : abstract book, 3 - 6 May 2006, Malta / [s.l. : s.n., 2006]. - p 28 [Nr. Estr. 3400]

Annual General Meeting Med-Vet-Net (2nd : Malta : 3 -6 May 2006)

Incidence and circulation of different strains of Norovirus in shellfish were studied on 235 samples obtained from different sites, representing the shellfish production areas of the northern Adriatic sea. Shellfish were harvested in the period of one year and, after depuration, were examined for bacterial (*E. coli* and *Salmonella*) and norovirus contamination. None of the samples revealed the presence of salmonella, and in most of them (93%) the number of *E. coli* was below the European legislation limit of 230 MPN/100g. *T. philippinarum* was the species most often contaminated, as well as being the only species in which the legal limit for *E. coli* was, in some cases, exceeded. NoV contamination was present in 16% of samples. The viruses were detected throughout the year although their detection was slightly more frequent during winter months, positive samples were also present in summer. The sequencing of the PCR products showed the circulation of four different NoV genotypes (Hawaii, Melksham, Lordsdale and GGIIb) with a prevalence of the GGIIb genotype in the second period of the monitoring.

Luini^oM

Monitoraggio della infezione da salmonella negli allevamenti suini = Monitoring salmonella infection in pig herds

Atti del XXIX Corso in patologia suina e tecnica dell'allevamento : Brescia, 04 Ottobre - 13 Dicembre 2005 / a cura di Loris Alborali, Maddalena De Cilla. - Brescia : Fondazione Iniziative Zooprofilattiche e Zootecniche, 2006. - (Atti delle giornate di studio Fondazione Iniziative Zooprofilattiche e Zootecniche ; 64) p 189-201 - 11 bib ref [Nr. Estr. 3356]

Corso in patologia suina e tecnica dell'allevamento (29 : Brescia : 04 Ottobre - 13 Dicembre 2005)

Vengono illustrati i principali strumenti a disposizione dei veterinari, degli allevatori e delle autorità per monitorare lo stato dell'infezione da *Salmonella* negli allevamenti suini. Vengono considerati i vantaggi e i limiti delle indicazioni che si ottengono attraverso diverse modalità di indagine, dal semplice monitoraggio clinico e anatomopatologico, per arrivare a quello basato su esami batteriologici e sierologici. Di seguito viene illustrata la situazione della diffusione della *Salmonella* negli allevamenti italiani sulla base dei dati disponibili. I dati sono indicativi di una ampia diffusione del problema, in analogia con quanto documentato in altri paesi europei. Viene poi brevemente discussa la impostazione di piani di controllo attivi in questi paesi con particolare riferimento all'esempio danese. Infine si conclude con alcune considerazioni sulla opportunità di avviare anche in Italia programmi di monitoraggio e controllo dell'infezione da *Salmonella* negli allevamenti suini per la salvaguardia della salute pubblica e compatibilmente con la redditività del settore suinicolo.

The main tool, available for veterinarians, farmers and authorities for monitoring the status of

Salmonella infection in pig herds are discussed. The advantages and limits of the different diagnostic methods (clinical, pathological up to bacteriological and serological methods) are discussed in view of their application in surveillance programme. Based on few available data the spread of Salmonella in the Italian pig farms seems to be as wide as in other European countries where the situation is well documented. The principles of the Salmonella monitoring and control plans active in Europe are also briefly described with particular reference to the Danish one. Finally the opportunity of a rapid activation of local plans in Italy is considered for their impact on public health but with attention to the economic impact on pig industry.

Luini°M, Gualdi°V, Maietti°L, Vezzoli°F, La_Malfa C, Radaelli E, Soriolo A, Alberton A, Fin M, Rodeghiero M

Mycoplasma bovis in bovini da carne con patologia respiratoria = Mycoplasma bovis in fattening cattle with respiratory disease

Large Anim Rev. - Vol. 12 no 6 (2006). - p 11-15. - 23 bib ref [Nr. Estr. 3394]

M. bovis è riconosciuto come un importante patogeno nelle forme respiratorie dei bovini ed è frequentemente coinvolto in focolai di broncopneumonia. Il principale obiettivo della nostra indagine è stato quello di evidenziare il coinvolgimento di questo microorganismo nel corso di forme respiratorie in bovini da carne (vitelli a carne bianca e vitelloni) in allevamenti del Nord-Italia. METODI - Al fine di disporre di un semplice strumento diagnostico è stata sviluppata una metodica PCR da utilizzare direttamente sui tamponi nasali o per la tipizzazione come M. bovis dei mycoplasmi isolati in coltura. Su 67 bovini colpiti da sintomatologia respiratoria sono stati effettuati altrettanti tamponi nasali e rilevati sintomi clinici e risposta al trattamento con tulatromicina, dal momento del prelievo al giorno 10. RISULTATI - Su 67 tamponi nasali, 41 (67,2%) sono risultati positivi per M. bovis. Di questi 40 (59,7%) o 27 (40,3%) sono risultati positivi rispettivamente in PCR o all'esame culturale. La gravità dei sintomi riscontrati negli animali campionati non è apparsa in diretta relazione con la positività da M. bovis ed il trattamento con tulatromicina da solo o associato ad altri farmaci è risultato efficace nella risoluzione della sintomatologia. CONSIDERAZIONI - Il metodo di PCR messo a punto, si è dimostrato sufficientemente sensibile e pratico nell'applicazione in laboratori diagnostici di base per messa in evidenza di M. bovis da campioni clinici e da colture. Le nostre indagini hanno messo in evidenza una elevata prevalenza di M. bovis in forme respiratorie in vitelli a carne bianca e in vitelloni da carne di varie razze e provenienze.

M. bovis is recognized as an important pathogen for the respiratory tract of cattle and it is frequently involved in outbreaks of enzootic bronchopneumonia. Our investigations has been directed to demonstrate the involvement of this microorganism in cases of respiratory disease in fattening cattle in northern Italy. METHODS - In order to improve a rapid diagnosis of the infection, a direct PCR was developed for demonstrating M. bovis from nasal swabs. 67 animals affected by respiratory symptoms were sampled by nasal swab and the clinical symptoms were recorded during 10 days after a treatment with tulathromycin. RESULTS - Out of 67 samples collected from fattening bulls with respiratory symptoms, 41 (67.2%) were positive for M. bovis by PCR and/or culture. 40 (59.7%) and 27 (40.3%) were positive by culture and PCR respectively. The severity of symptoms doesn't appear directly related with the positivity for M. bovis in the nasal swabs and the treatment with tulathromycin, alone or associated with other commonly used drugs, was effective in the recovery of the affected animals. DISCUSSION - The developed PCR method proved to be feasible and sufficiently sensitive to be applied in field laboratories as a practical tool for detecting M. bovis in clinical samples and bacteriological cultures. Our investigations evidenced an high prevalence of M. bovis in cattle of different age, breeding and origin affected by respiratory diseases.

Luini°M, Vezzoli°F, Boldetti°C

Il monitoraggio sanitario in 10 allevamenti suini da riproduzione

Large Anim Rev. - Vol. 12 no 2 (2006). - p 47-49. - bib ref 6 [Nr. Estr. 3288]

Luppi°A, Cordioli°P

Influenza aviaria e rischi per l'allevamento suino = Avian influenza risks for swine industry

Atti del XXIX Corso in patologia suina e tecnica dell'allevamento : Brescia, 04 Ottobre - 13 Dicembre 2005 / a cura di Loris Alborali, Maddalena De Cillà. - Brescia : Fondazione Iniziative Zooprofilattiche e Zootecniche, 2006. - (Atti delle giornate di studio Fondazione Iniziative Zooprofilattiche e Zootecniche ; 64) p 215-221. - 5 bib ref [Nr. Estr. 3353]

Corso in patologia suina e tecnica dell'allevamento (29 : Brescia : 04 Ottobre - 13 Dicembre 2005)

Nel presente lavoro vengono presi in considerazione i principali aspetti eziologici ed epidemiologici relativi all'influenza aviaria, con particolare riferimento al discusso ruolo svolto dal suino nella complessa epidemiologia della malattia.

In this paper the most important aetiological and epidemiological aspects of avian influenza is considered and the potential role of the pig as a reassortment vessel evaluated.

Magnino°S, Haag-Wackernagel D, Geigenfeind I, Dovc A, Prukner-Radovcic E, Donati M, Laroucau K, Martinov S, Kaleta EF

Report on the COST 855 meeting held in Pavia on urban pigeons and their implications on public health

Proceedings of the Fourth Annual Workshop of COST Action 855 Animal Chlamydioses and Zoonotic Implications : diagnosis, pathogenesis and control of animal chlamydioses : Edinburgh, Midlothian Scotland, Uk 3rd-5th September 2006 / edited by David Longbottom, Mara Rocchi. - [s.l. : s.n., c2006]. - p 10-11 [Nr. Estr. 3507]

Annual Workshop of COST Action 855 Animal Chlamydioses and Zoonotic Implications (4 : Edinburgh, Midlothian Scotland, Uk : 3rd-5th September 2006)

Martella V, Bányai K, Ciarlet M, Iturriza_Gómara M, Lorusso E, De_Grazia S, Arista S, Decaro N, Elia G, Cavalli A, Corrente M, Lavazza°A , Baselga R, Buonavoglia C

Relationships among porcine and human P[6] rotaviruses : evidence that the different human P[6] lineages have originated from multiple interspecies transmission events

Virology. - Vol. 344 (2006). - p 509-519. - 64 bib ref [Nr. Estr. 3519]

Porcine rotavirus strains (PoRVs) bearing human-like VP4 P[6] gene alleles were identified. Genetic characterization with either PCR genotyping or sequence analysis allowed to determine the VP7 specificity of the PoRVs as G3, G4, G5 and G9, and the VP6 as genogroup I, that is predictive of a subgroup I specificity. Sequence analysis of the VP8* trypsin-cleavage product of VP4 allowed PoRVs to be characterized further into genetic lineages within the P[6] genotype. Unexpectedly, the strains displayed significantly higher similarity (up to 94.6% and 92.5% at aa and nt level, respectively) to human M37-like P[6] strains (lineage 1), serologically classifiable as P2A, or to the atypical Hungarian P[6] human strains (HRVs), designated as lineage V (up to 97.0% aa and 96.1% nt), than to the porcine P[6] strain Gottfried, lineage II «85.1% aa and 82.2 nt), which is serologically classified as P213. Interestingly, no P[6] PoRV resembling the original prototype porcine strain, Gottfried, was detected, while Japanese P[6] PoRV clustered with the atypical Japanasc GI human strain AU 19. By analysis of the 10th and 11th genome segments, all the strains revealed a NSP413 genogroup (Wa-like) and a NSP5/6 gene of porcine origin. These findings strongly suggest interspecies transmission of rotavirus strains and/or genes, and may indicate the occurrence of at least 3 separate rotavirus transmission events between pigs and human, providing convincing evidence that evolution of human rotaviruses is tightly intermingled with the evolution of animal rotaviruses.

Martella V, Ciarlet M, Bányai K, Lorusso E, Cavalli A, Corrente M, Elia G, Arista S, Camero M, Desario C, Decaro N, Lavazza A, Buonavoglia C

Identification of a novel VP4 genotype carried by a serotype G5 porcine rotavirus strain

Virology. - Vol. 346 (2006). - p 301-311. - 73 bib ref [Nr. Estr. 3520]

Rotavirus genome segment 4, encoding the spike outer capsid VP4 protein, of a porcine rotavirus (PoRV) strain, 134.04-15, identified in Italy was sequenced, and the predicted amino acid (aa) sequence was compared to those of all known VP4 (P) genotypes. The aa sequence of the fulllength VP4 protein of the PoRV strain 134.04-15 showed aa identity values ranging from 59.7% (bovine strain KK3, P8[11]) to 86.09% (porcine strain A46, P[13]) with those of the remaining 25 P genotypes. Moreover, aa sequence analysis of the corresponding VP8* trypsin cleavage fragment revealed that the PoRV strain 134/ 4-15 shared low identity, ranging from 37.52% (bovine strain 993'83, P[t 7]) to 73.6% (porcine strain MDR-13, P [13]), with those of the remaining 25 P genotypes. Phylogenetic relationships showed that the VP4 of the PoRV strain 134.;04-15 shares a common evolutionary origin with porcine P[13] and tapine P[22] rotavirus strains. Additional sequence analyses of the VP7, VP6, and NSP4 genes of the PoRV strain 134/04-15 revealed the highest VP7 aa identity (95.9%) to G5 porcine strains, a porcine-like VP6 within VP6 genogroup I, and a Wa-like (genotype B) NSP4, respectively. Altogether, these results indicate that the PoRV strain 134/04-15 should be considered as prototype of a new VP4 genotype, P[26], and provide further evidence for the vast genetic and antigenic diversity of group A rotaviruses.

Massi P, Tosi G, Meini A

Protezione di polli vaccinati con differenti programmi vaccinali nei confronti del ceppo di campo IT-02 del virus della bronchite infettiva: risultati preliminari

= Protection of chickens vaccinated with different schemes including the 4/91 IBV vaccine strain against field IBV strain Italy 02: preliminary results

Ital J Anim Sci. - Vol. 5 no 3 (2006). - p 302-308 - 5 bib ref [Nr. Estr. 3324]

E' stata condotta una prova sperimentale al fine di valutare la protezione indotta da differenti programmi vaccinali (comprendenti anche il ceppo vaccinale 4/91) nei confronti dell'infezione sostenuta dal ceppo di bronchite infettiva aviaria denominato Italy 02. Il livello di protezione è stato calcolato attraverso la valutazione della ciliostasi osservata su colture d'organo (anelli tracheali). Sono stati rilevati buoni indici di protezione in tutti i programmi vaccinali impiegati nella prova. Inoltre, tale protezione è stata osservata in entrambe le età utilizzate per il challenge con il virus di campo (36 e 56 giorni).

The ability of different vaccine programmes (including the 4/91 vaccine strain) to protect against field infectious bronchitis virus (IBV) strain Italy 02 was investigated using specific pathogen free (SPF) chickens. Protection, as measured by assessing ciliary activity of the tracheal epithelium following challenge, was excellent with all vaccine schedule used in this trial. The data provided by this study also indicates that vaccination programmes induced adequate protection against both challenges at 36 and at 56 days of age.

Merlaldi G

Le malattie enteriche del suino nelle fasi di accrescimento e finissaggio = Enteric disorders of growing and fatterners pigs

Atti del XXIX Corso in patologia suina e tecnica dell'allevamento : Brescia, 04 Ottobre - 13 Dicembre 2005 / a cura di Loris Alborali, Maddalena De Cillà. - Brescia : Fondazione Iniziative Zooprofilattiche e Zootecniche, 2006. - (Atti delle Giornate di Studio Fondazione Iniziative Zooprofilattiche e Zootecniche ; 64) p 159-168. - 25 bib ref [Nr. Estr. 3374]

Corso in patologia suina e tecnica dell'allevamento (29 : Brescia : 04 Ottobre - 13 Dicembre 2005)

Le patologie enteriche del suino continuano a rappresentare un fattore fortemente limitante per la suinicoltura. Se infatti nel periodo sottoscrofa e negli svezzamenti, in virtù di miglioramenti gestionali ed alimentari, gli effetti delle malattie enteriche sono senza dubbio meno devastanti che nel passato, nei reparti di accrescimento e finissaggio tali patologie risultano tutt'ora di difficile controllo. Gli aspetti eziologici, epidemiologici, patologici, clinici e diagnostici delle principali malattie delle fasi di accrescimento (dissenteria emorragica suina, la Spirochetosi intestinale, l'Illeite e l'Enterocolite salmonellare) sono passati in rassegna con l'intento di fornire un quadro aggiornato e per quanto possibile completo. Nell'ultima parte della rassegna si traccia una panoramica della situazione epidemiologica italiana relativa ai patogeni considerati confrontandola con quella di altre realtà europee.

Enteric disorders of growing and fattening pigs still represent a factor of limitation to swine production. In fact, if on one hand, due to improvements in management and alimentation, the impact of enteric diseases in farrowing and weaning units appears less severe than in the past on the other these disorders in growing and fattening pigs are still a difficult task to control. Aspects of aetiology, epidemiology, clinic, pathology and diagnosis of most important enteric diseases affecting growing and fattening units in Italian herds (Swine dysentery, Porcine intestinal spirochetosis, Porcine proliferative enteropathies, Salmonella Typhimurium enterocolitis) are reviewed with the aim of giving an actual and a complete as possible general picture. In the last part of the paper the Italian epidemiological situation is described and compared to those of other European countries.

Meriardi°G, Bonilauri°P, Dottori°M

Presence of tiamulin and valnemulin resistant B. hyodysenteriae strains in Italian pig herds

International Pig Veterinary Society : the 19th Congress (IPVS) : 16-19 July 2006 Copenhagen, Denmark : proceedings / [Copenhagen : International Pig Veterinary Society, c2006]. - cdrom p 455. - 7 bib ref [Nr. Estr. 3511]

International Pig Veterinary Society Congress (IPVS) (19th : Copenhagen, Denmark : 16-19 July 2006)

Meriardi°G, Casappa P

Aggiornamenti sulle principali patologie enteriche del suino nelle fasi di accrescimento e finissaggio : III° parte: strategie di controllo della dissenteria emorragica del suino

Riv Zootec Vet. - Vol. 35 no 2 (2006). - p 17-22. - 22 bib ref [Nr. Estr. 3421]

In questa esposizione che rappresenta la III° parte di una rassegna sulle malattie enteriche dei suini in accrescimento e finissaggio. sono trattati gli aspetti principali del controllo della dissenteria emorragica in considerazione dello stato attuale di sensibilità ai farmaci antibatterici di *Brachyspira hyodysenteriae* in Italia e delle condizioni strutturali e gestionali tipiche dei nostri allevamenti. L'adozione combinata di una terapia e di interventi gestionali rappresenta allo stato attuale delle cose l'unico modo per affrontare la problematica in base all'assenza di vaccini efficaci e divieto d'uso di quei promotori di crescita che si dimostravano efficaci nel controllo della malattia. L'insorgere e il diffondersi di fenomeni di antibiotico resistenza costituisce un serio fattore di preoccupazione che deve portare ad un uso mirato e consapevole delle poche molecole attive ancora disponibili.

*In this paper, representing the third part of a review about enteric disorders in growing and fattening pigs, the major aspects of Swine dysentery control are described. The actual features of susceptibility of *Brachyspira hyodysenteriae* to antibiotics are discussed by considering also the current state of management of the Italian farms. The combination of therapy with a suitable management seems the only tool for controlling this disease in the absence of a useful vaccine and of banned growth promoters effective against this disease. A big cause of concern is represented by antibiotic resistance which seems to be spreading to all effective categories of antibiotics. This should lead to greater and greater awareness in the use of the few still available molecules still available.*

Meriardi°G, Casappa P

Aggiornamenti sulle principali patologie enteriche del suino nelle fasi di accrescimento e finissaggio : II° parte: strategie di controllo del l'ileite (enteropatia proliferativa del suino)

Riv Zootec Vet. - Vol. 35 no 2 (2006). - p 11-16. - 21 bib ref [Nr. Estr. 3423]

Come descritto nella la parte di questa rassegna, l'infezione da Lawsonia intracellularis nel suino può determinare situazioni cliniche e patologiche diverse. Le differenze possono essere dovute anche alla diversa età nella quale gli animali vengono colpiti e alla diversa gravità dei danni causati dal patogeno. Nella forma più grave ed acuta (Proliferative Hemorrhagic Enteropathy o PHE). in considerazione delle gravi perdite economiche legate alla mortalità, la malattia deve essere curata con urgenza. La forma cronica può essere controllata dall'uso di antibiotici specifici tenendo conto anche dell'importanza dell'immunità naturale nella prevenzione di possibili recidive o nelle forme acute tardive degli animali. La vaccinazione (con vaccino vivo attenuato), sebbene presenti alcune difficoltà nella somministrazione, potrebbe essere considerata un ulteriore strumento di controllo della patologia.

As described in the first part of this review, the Lawsonia intracellularis infection in swines can lead to different clinical and pathological pictures. Differences may involve also the age of affected pigs and the level of damage caused by the disease. In its most severe and acute form (PHE), on the base of mortality of animals of economical value, the disease must be promptly cured. The chronic form can be controlled with specific antibiotics, moreover by holding in high esteem the importance of natural immunity for the prevention of relapses or in case of acute course in adult animals. Oral vaccination with a live modified vaccine, despite of some difficulties in its administration, could be considered as a further tool of control.

Moreno°A, Lelli°D, Sozzi°E, Luppi°A, Brocchi°E, C ordioli°P

Monoclonal antibody based ELISAs for the detection of antibodies elicited to H5 and H7 influenza viruses

7th International Congress of the European Society for Veterinary Virology : 24-27 September 2006, Lisboa - Portugal / [s.l : s.n., 2006]. - p 196. - 2 bib ref [Nr. Estr. 3366]

International Congress of the European Society for Veterinary Virology (7. : Lisboa - Portugal : 24-27 September 2006)

Nassuato C, Cominardi P, Tagliabue°S, Pennelli°D

Gestione di un focolaio da Leptospira interrogans sierovariante Polmona in un allevamento suino da ingrasso

Osservatorio. - Vol. 2 no 9 (2006). - p 4-9 [Nr. Estr. 3222]

Nigrelli°A, Nardi M

Le malattie prevalenti nell'allevamento del suino tra costi e regolamenti

Large Anim Rev. - Vol. 12 no 2 (2006). - p 43-45. 4 bib ref [Nr. Estr. 3286]

Nigrelli°AD, Faccini°S, Franzini°G, Nardi M, Rosigno li°C

PED (Porcine Epidemic Diarrhea): alcune osservazioni sull'epizoozia 2005-2006 = PED (Porcine epidemic diarrhea): some observations on the 2005-2006 epidemic

Large Anim Rev. - Vol. 12 no 6 (2006). - p 22-24 - 4 bib ref [Nr. Estr. 3395]

Gli Autori descrivono le caratteristiche cliniche dei focolai di Porcine Epidemic Diarrhea (PED) diagnosticati mediante PCR, durante l'epizoozia che nel 2005-2006 ha interessato l'Italia del Nord.

The Authors describe clinical signs of the Porcine Epidemic Diarrhea outbreaks detected by PCR in the Northern Italy during 2005-2006.

Nigrelli° AD, Faccini° S, Nardi° M, Franzini° G, Rosignoli° C

Applicazione di un metodo Real-Time PCR per la diagnostica molecolare di BDV

VIII Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) : Perugia, 9-10 Novembre 2006 : volume degli atti / [s.l. : Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV), 2006]. - p 347-348. - 3 bib ref [Nr. Estr. 3328]

Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) (8. : Perugia : 9 - 10 Novembre 2006)

L'applicazione di tecniche di Real-Time PCR nella diagnostica di laboratorio offre numerosi vantaggi rispetto alle metodiche di PCR tradizionale. Esse infatti consentono tempi d'analisi molto più rapidi, presentano sensibilità identica se non addirittura superiore, espongono a rischi enormemente inferiori di cross-contaminazioni, e offrono l'opportunità di speculazioni di tipo quantitativo. Il presente lavoro riporta una prima valutazione di un metodo Real-Time per la ricerca di BVDv in campioni diagnostici allo scopo di introdurla in routine in alternativa ad una metodica RT-Nested PCR precedentemente utilizzata.

Introduction of Real-Time PCR methods in virological diagnostic offers several improvements over conventional PCR techniques: higher sensitivity and specificity, reduced execution time, decreased risk of cross-contamination and possibility of achieving quantitative data. The present paper reports the evaluation of a Real-Time PCR test for detection of BVDv in clinical samples as substitute of a conventional RT-Nested PCR. Data obtained indicate good concordance between the two tests. Moreover Real-Time proved a 10-fold higher analytical sensitivity for BVD1 detection, compared to RT-Nested PCR method besides an increased rapidity of result emission.

Nigrelli° AD, Faccini° S, Nardi° M, Franzini° G, Rosignoli° C

Studio preliminare sulla prevalenza dell'infezione mammaria da Mycoplasma bovis nel bovino

VIII Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) : Perugia, 9-10 Novembre 2006 : volume degli atti / [s.l. : Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV), 2006]. - p 43-44. - 7 bib ref [Nr. Estr. 3338]

Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) (8. : Perugia : 9 -10 Novembre 2006)

The Authors report preliminary results on the Mycoplasma bovis infection prevalence in dairy farms of a Northern Italy district. The research was carried out by nested- PCR. The Authors, also, described the variation of the prevalence in two dairy herd infected from 2202 to 2005 and compared the sensitivity between cultural test and nested-PCR for the Mycoplasma bovis research. In this study the M. bovis prevalence was lower than in other countries. Nested- PCR was more sensitive than cultural test. The use of tylosin reduced or stopped the prevalence of infection.

Nunez JI, Fusi° P, Borrego° B, Brocchi° E, Pacciarini° ML, Sobrino F

Genomic and antigenic characterization of viruses from the 1993 Italian foot-and-mouth disease outbreak

Arch Virol. - Vol. 151 (2006). - p 127-142. - 57 bib ref [Nr. Estr. 3268]

The origin and evolution of the type O foot-and-mouth disease viruses (FMDV) that caused the outbreak occurrence in Italy in 1993, the first episode of the disease in the EU after adoption of a

non-vaccination policy in 1991, have been studied by the analysis of sequences encoding three main antigenic sites on the viral capsid proteins. The phylogenetic tree derived from sequences spanning the carboxyterminal end of VP 1 showed that these Italian viruses were grouped in the ME-SA toptotype, closely related to viruses that circulated previously in the Middle East. The analysis of the nucleotide sequences in VP1, VP2 and VP3 showed a co-circulation during the epizootic of genetic variants, including viruses with amino acid replacements in VP3. For some of the isolates analyzed, values of fixation of nucleotide substitutions per year were observed in the three regions analyzed, ranging from 1.5 to 5.1 x 10⁻². The use of a panel of new monoclonal antibodies raised against an isolate from this outbreak, as well as monoclonal antibodies to FMDV 01-Switzerland 1965, showed differences in the reactivity pattern among some of the Italian isolates analyzed, which were consistent with the co-circulation of antigenic variants. These results support the potential for FMDV diversification in a limited period of time and under epidemiological conditions in which no vaccination campaigns were being implemented.

Ostanello F, Dottori^oM, Gusmara C, Leotti G, Sala V

Utilizzo del punteggio polmonare (lung score) nei suini italiani : validazione del metodo, valutazione della prevalenza e dei fattori di rischio associati all'infezione da Mycoplasma hyopneumoniae

Large Anim Rev. - Vol. 12 no 2 (2006). - p 13-21. - 34 bib ref [Nr. Estr. 3287]

Il presente lavoro ha avuto i seguenti scopi: a) valutare l'applicabilità di un metodo di quantificazione delle lesioni polmonari riconducibili all'infezione da *M. hyopneumoniae* (Mh) in suini normalmente macellati nel nostro Paese, b) identificare i fattori di rischio correlati ad un aumento della prevalenza e della severità delle lesioni polmonari e, c) valutare la possibile relazione tra gravità delle lesioni polmonari da Mh e qualità della carcassa. Sono stati esaminati al macello i polmoni di 10.041 suini di 109 partite provenienti da 91 allevamenti del nord-Italia. Le lesioni polmonari sono state quantificate utilizzando il metodo de-scritto da Madec e Kobisch (1982). Per ciascuna partita, sono state raccolte alcune informazioni relative alla tipologia, management e sistemi di profilassi adottati negli allevamenti di origine. Per 41 delle partite esaminate (3.603 animali) è stato possibile ottenere anche informazioni relative alla valutazione qualitativa delle carcasse. Il metodo di quantificazione utilizzato consente di valutare la presenza di lesioni polmonari mycoplasmalike anche in animali di circa 9-10 mesi di vita. Lesioni causate da Mh sono state evidenziate nel 59,6% dei polmoni esaminati. Il punteggio medio di partita è stato di 2,11. 1 fattori di rischio aziendali correlati con un aumento significativo della gravità delle lesioni polmonari riscontrate sono stati: presenza di riproduttori nell'allevamento, avvio del magronaggio nella stagione invernale e mancato utilizzo della profilassi vaccinale contro Mh. È stato inoltre rilevato che all'aumentare del punteggio polmonare della partita corrisponde una diminuzione della valutazione qualitativa delle carcasse.

The objectives of the present study were: a) to evaluate the feasibility of a quantitative method for the assessment of Mycoplasma hyopneumoniae (Mh) lesions in Italian slaughtered pigs, b) to identify risk factors related to the increasing of the prevalence of the infection and the severity of the lung lesions and, c) to evaluate a possible correlation between Mh lesions in Italian slaughtered pigs and the quality of the carcass. The lungs of 10,041 pigs from 109 slaughtered batches and 91 farms located in Northern Italy were examined. Lung lesions were scored using the system by Madec and Kobisch (1982). Before the scoring, anamnestic information for each batch were collected and recorded by performing a telephone interview to vet practitioners or pig farmers. For 41 batches (3,603 swine), information about carcass quality was also collected. Mh lesions were found in 59.6% of the lungs examined. The average batch score was 2.11. We identified as farm risk factors related to an increasing of the severity of the lesions due to Mh infection the presence of breeders within the herd, the starting of the growing cycle during the winter season and the lack of vaccination programmes for Mh. Moreover, we found a statistically significant correspondence between the mean score of the batch and the decreasing of the carcass quality.

Pacciarini^oM, Boniotti^oB, Zanoni^oMG, Alborali^oGL, Tagliabue^oS, Sala^oG,

Gaffuri°A

Rilevamento di micobatteri *Mycobacterium tuberculosis* complex in popolazione di cinghiale (*Sus scrofa*) in Lombardia

Osservatorio. - Vol. 9 no 5 (2006). - p 14-15 [Nr. Estr. 3359]

Pacciarini ML

Molecular methods applied at IZSLER for identification and detection of mycobacteria

Laboratory Diagnosis of Mycobacterium spp : 26th-29th 2006 Jena : Workshop / Organized by Laboratory of Sanitary Surveillance : Faculty of Veterinary Medicine Universidad Complutense. - [s.l. : VENoMIC, 2006]. - p 33 [Nr. Estr. 3566]

Workshop of "Laboratory Diagnosis of Mycobacterium spp" : Veterinary Network of Laboratories Researching into Improved Diagnosis and Epidemiology of Mycobacterial Diseases (VENoMIC) : Jena : 26th-29th 2006)

One of the research activities in which bovine tuberculosis reference centre is involved, is the evaluation of new strategies for identification and detection of Mycobacteria. After conventional homogenization and decontamination of clinical samples, the molecular biology flow chart applied at IZSLER provides: - On tissue homogenates and in parallel with culture isolation methods, a PCR assay for direct detection of Mycobacterium tuberculosis complex (MtbC) in the sample. - On mycobacterial isolates an identification scheme based on three PCR reactions specific respectively for Mycobacterium spp., Mycobacterium avium and MtbC. According to the combination of PCR results we follow different strategies: if Mycobacterium spp and M. avium PCRs are positive and MtbC PCR is negative, we identify the isolate as M. avium; if the isolate is positive only to Mycobacterium spp. PCR reaction, we sequence the 500 bp portion of RNAr 16s gene and analyse it by Microseq 500 data bank (Applied Biosystems). In case of positivity to Mycobacterium spp and MtbC PCRs, we perform a PCR/RFLP assay of gyrB gene for identification of M. bovis, M. caprae and M. microti. - In case clinical sample is positive to IS6110 PCR test and negative to culture isolation, we can apply gyrB PCR/RFLP assay directly on tissue homogenates. Results of molecular scheme identification will be described and compared with traditional bacteriological methods.

Pacciarini°ML, Boniotti°MB, Tagliabue°S, Zanoni°M , Sala°G, Monaci°C, Gaffuri°A

Detection and genotyping of Mycobacterium tuberculosis complex in lymph nodes of wild boar (*Sus scrofa*) populations in Lombardy Region

VII Conference of the European Wildlife Disease Association: 27th - 30th September 2006 Aosta Valley, Italy / [s.l. : s.n., 2006]. - 3544]

European Conference European Section, Wildlife Disease Association (7st : Aosta Valley, Italy : 27th - 30th September 2006)

AIM OF THE STUDY: The presence of Mycobacterium tuberculosis complex (MtbC) in wild boar has been reported in several European countries including Italy. In Lombardy, wild boar population has remarkably increased in the last ten years and bovine tuberculosis (TB) is still presene in cattle herds despite application of TB eradication programs. In this context, a TB survey programme has been carried out since 2000 in two wild boar populations located respectively in Bergamo and Como provinces: the study focused on detection and characterization of MtbC mycobacteria present in wild boar collected samples. MATERIALS & METHODS: Six hundreds fourteen wild boar lymph nodes were collected and controlled by macroscopic inspection. Culture isolation and PCR analysis specific for detection of MtbC were performed on 149 tissue samples mainly selected for the presence of tuberculosis-like lesions. RESULTS: PCR results revealed the presence of MtbC DNAs in 80 animals. Further studies performed on 60 out of 80 IS6110 positive samples by PCR-RFLP of gyrB and by spoligotyping, revealed genetic profiles compatible with identification of M. microti and

M. bovis respectively in 48 and in 2 tissue samples. Culture isolation was successful only in three cases: two mycobacteria isolates were identified as M. bovis and one as M. microti by molecular and bacteriological methods. CONCLUSIONS: Our results show the presence of M. microti in a consistent number of wild boar lymph nodes never reported before in this animal species in Italy: difficulty of isolation and application of PCR test for detection of MtbC group, could mislead about correct identification of the species We could isolate only two M. bovis strains from wild boar hunted in Como whose genetic profiles are different to those found in recent TB outbreaks occurring in the same area. This study shows that in Bergamo and Como provinces the presence of M. bovis in wild boar does not represent a significant problem. Further investigations are necessary to assess the real frequency of TB infection in wildlife population in Lombardy. These data are comparable to results obtained in Piedmont region by colleagues of IZS of Torino.

Paci G, Bagliacca M, Lavazza°A

Stress evaluation in hares (*Lepus europaeus pallas*) captured for traslocation

Ital J Anim Sci. - Vol. 5 no 2 (2006). - p 175-181 - 15 bib ref [Nr. Estr. 3294]

With the aim to evaluate the capturing techniques some haematic and physiological parameters were studied to discriminate stressed hares from non stressed hares. A total of 66 wild hares (experimental group) were sampled in 14 different non-hunting areas, where hares are usually captured for later release in low-density areas. In the same season a total of 30 hares (about 1 year old), reared in cages and thus showing a reduced fear of man, were sampled (control group). In each area the hares were captured by coursing with 3-4 dogs (greyhounds or lurches). The dogs were released by the different hunter teams to find and drive into trammel nets any hare that was seen running. After capture, the hares remained inside darkened, wooden capture-boxes for a variable period of time before blood drawing. For blood sample collection all the hares were physically restrained and their eyes immediately covered. Blood, always collected within 1-2 minutes, was drawn from the auricular vein. Blood samples (plasma) were analysed for glucose, AST, ALT, CPK and cortisol concentrations. Body temperature, heart and respiratory rate, sex, and age were evaluated in each hare. The effect of origin, sex and age on haematic and physiological parameters was analysed by ANOVA. Every measured parameter of the hares bearing to the capture group or the control group (reared) was then subjected to stepwise and to discriminant analysis, in order to select the groups of stressed (discriminated by the controls) and non-stressed hares. CPK, AST and glucose were found to be the best parameters for distinguishing stressed from non-stressed hares. The intensive exercise suffered by the wild hares induced a depletion of energetic reserves, so that most of the captured hares showed lower glucose and higher CPK activity in the plasma, probably due to muscle damage ($P < 0.05$). After reclassifying the hares in the two groups of stressed and non stressed hares, the reference values (means \pm SE) resulted as follows: estimated non-stressed hares, glucose 234 (\pm 9.4 mg/dl), AST 112 (\pm 22.2 U/l), CPK 1334 (\pm 734 U/l); estimated stressed hares, glucose 128 (\pm 7 mg/dl), AST 164 (\pm 13 U/l), CPK 4658 (\pm 454 U/l). These three cheap and quickly analysable analytes can be useful to the game manager in detecting stressed and non stressed hares, in order to improve the capturing techniques by the evaluation of the following relationship: (number of stressed hares + number of the dead hares during the capture)/number of total captured hares.

Parida S, Fleming L, Gibson D, Hamblin PA, Grazioli° S, Brocchi°E, Paton DJ

Bovine serum panel for evaluation of FMDV non structural protein antibody tests

European Commission for the Control of Foot-and-Mouth Disease : Open Session of the Research Group of the Standing Technical Committee of the European Commission for the Control of Foot-and-Mouth Disease : International Control of Foot-and-Mouth Disease: Tools, Trends and Perspectives : 16-20 October 2006 Paphos, Cyprus / [s.l : s.n., 2006]. - p 50 [Nr. Estr. 3547]

Session of the Research Group of the Standing Technical Committee of the European Commission

for the Control of Foot-and-Mouth Disease : Paphos, Cyprus : 16-20 October 2006)

Introduction: In future outbreaks of foot-and-mouth disease (FMD), countries may adopt a "vaccinate-to-live" control policy after which only vaccinated animals that are carrying FMD virus (FMDV) need to be identified for removal using post-outbreak serosurveillance. Detection of serum antibodies to FMDV non structural proteins (NSP) in FMD vaccinated and subsequently infected animals is used to indicate infection, since vaccination alone elicits mainly antibodies against the FMDV structural proteins. This study has established a panel of FMD NSP reference sera to evaluate the sensitivity of NSP tests. **Materials and Methods:** A panel of 36 sera has been assembled in bulk quantities from experimental cattle that had been infected by inoculation or contact exposure with four serotypes of FMDV with or without prior vaccination. Serum antibodies to FMDV NSPs have been measured by four different commercially available ELISAs (Cedi-Diagnostics, United Biochemical Incorporated, Svanova Biotech AB and Bommeli Diagnostics) and one in-house ELISA (IZS, Brescia). Test repeatability and reproducibility were evaluated in two laboratories (IAH, Pirbright and IZS, Brescia) along with the effect of two viricidal serum treatments. **Results:** The proportion of sera scored positive by the five tests for NSP antibodies varied, suggesting that the panel can discriminate between the sensitivity with which such tests are able to identify infected animals. Mostly similar results were obtained after repeat tests with different assay batches in the same or different laboratories. Heat treatment increased the percentage positivity of sera only in the Bommeli test whereas binary ethyleneimine treatment had no effect on test results. **Conclusion:** The panel may be made available to various FMD reference laboratories to evaluate new tests and to quality control new batches of existing tests, especially where large diagnostic reserves of NSP kits are being established as part of contingency plans for dealing with future outbreaks.

Paton DJ, De_Clercq K, Greiner M, Dekker A, Brocchi°E, Bergmann I, Sammin JD, Gubbins S, Parida S

Application of non-structural protein antibody tests in substantiating freedom from foot-and-mouth disease virus infection after emergency vaccination of cattle

Vaccine. - Vol. 24 no 42-43 (2006). - p 6503-6512. - 20 bib ref [Nr. Estr. 3229]

There has been much debate about the use of the so-called "vaccinate-to-live policy for the control of foot-and-mouth disease (FMD) in Europe. according to which, spread of the FMD virus (FMDV) from future outbreaks could be controlled by a short period of "emergency)," vaccination of surrounding herds, reducing the need for large-scale pre-emptive culling of at-risk animals. Since vaccinated animals may become subclinically infected with FMDV following challenge exposure, it is necessary to either remove all vaccinates (vaccinate-to-kill) or to detect and remove vaccinates in which virus is circulating or has established persistent infections (vaccinate-to-live), in order to rapidly regain the most favoured trading status of FMD-free without vaccination. The latter approach can be supported by testing vaccinated animals for the presence of antibodies to certain non-structural proteins (NSP) of FMDV, which are induced by infection with the virus, but not by vaccination with purified FMD vaccines. Using test sensitivity and specificity data established at a recent workshop on NSP assays [Brocchi E. Bergmann I. Dekker A. Paton DJ. Sammin DJ. Greiner M. et al. Comparative performance of six ELISAs for antibodies to the non-structural proteins of foot-and-mouth disease. Vaccine. in press, this paper examines the ways in which serological testing with NSP ELISAs can be used and interpreted and the effect that this will have on the confidence with which freedom from infection can be demonstrated within guidelines specified by the World Animal Health Organisation and the European Commission.

Pedretti°E, Passeri B, Amadori°M, Isola P, Di_Pede P , Telera A, Vescovini R, Quintavalla F, Pistello M

Low-dose interferon-alfa treatment for feline immunodeficiency virus infection

Vet Immunol Immunopathol. - Vol. 109 (2006). - p 245-254. - 31 bib ref [Nr. Estr. 3250]

Feline immunodeficiency virus sustains an AIDS-like syndrome in cats, which is considered a relevant model for human AIDS. Under precise enrolment requirements, 30 naturally infected cats showing overt disease were included in a trial of lowdose, oral human interferon-a treatment. Twenty-four of them received 10 IU/Kg of human interferon-alfa and 6 placebo only on a daily basis under veterinary supervision. The low-dose human interferon-alfa treatment significantly prolonged the survival of virus-infected cats ($p < 0.01$) and brought to a rapid improvement of disease conditions in the infected hosts. Amelioration of clinical conditions was neither correlated with plasma viremia, nor with proviral load in leukocytes. A good survival of CD4+T cells and a slow increase of CD8+T cells were also observed in human interferon-alfa-treated cats. Interestingly, the improvement of the total leukocyte counts showed a much stronger correlation with the recovery from serious opportunistic infections. As shown in other models of low-dose interferon-alfa treatment, there was a rapid regression of overt immunopathological conditions in virus-infected cats. This hints at a major role of interferon-a in the control circuits of inflammatory cytokines, which was probably the very foundation of the improved clinical score and survival despite the unabated persistence of virus and virusinfected cells.

Pelliccioli L, Gaffuri°A, Tranquillo°V, Testa E, Pat erlini°F, Lanfranchi P

A five years seroprevalence dynamics of respiratory syncytial virus in chamois population (Rupicapra r. rupicapra) in the Italian Central Alps

VII Conference of the European Wildlife Disease Association: 27th - 30th September 2006 Aosta Valley, Italy / [s.l. : s.n., 2006]. - 3543]

European Conference European Section, Wildlife Disease Association (7st : Aosta Valley, Italy : 27th - 30th September 2006)

AIM OF THE STUDY: A seroepidemiological survey was carried out in the Orobie Alps (Province of Bergamo, Italy) to detect any variation of antibodies response to Respiratory Syncytial Virus (RSV) throughout five years. The study was performed after a severe die-off that affected chamois (*Rupicapra r. rupicapra*) metapopulation, with evidence of respiratory disease, in autumn-winter 2000-2001. **MATERIALS & METHODS:** The study area (51,703 ha) is characterised by five faunistic districts, with an estimated chamois of about 4000 animals. Blood samples were collected by hunters from 1,086 chamois during the 2001-2005 hunting seasons. A blocking ELISA was used to test for antibodies to RSV. **RESULTS:** The RSV seroprevalence showed a decrease in the second year, and than values were slightly lower. During the five years prevalence was respectively 46.8% (C.I. 95% 39-54), 36.6% (C.I. 95% 29-44), 35.5% (C.I. 95% 29-41), 30.4% (C.I. 95% 25-36), 33.3% (C.I. 95% 27-39). In relation to age classes, higher prevalence was found in sub-adults and adults than in kids and yearlings. Different seroprevalence values were also observed among the five faunistic districts. Following the sever die-off, sporadic cases of mortality due to acute respiratory disease have been reported. **CONCLUSIONS:** The highest seroprevalence observed in 2001 was likely due to respiratory disease outbreak that occurred in the study area few months before the serological survey. The seroprevalence observed in young animals during all five years suggested that infection is still present in chamois population. The presente in some districts of sheep flocks could represent a risk of interspecific transmission, considering that a RSV seroprevalence of 82% was detected in sheep in 2001.

Petracci M, Bianchi M, Cavani C, Gaspari P, Lavazza°A

Preslaughter mortality in broiler chickens, turkeys, and spent hens under commercial slaughtering

Poult Sci. - Vol. 85 no 9 (2006). - p 1160-1164. - 25 bib ref [Nr. Estr. 3308]

The incidence of dead on arrival (DOA) birds was surveyed over 33 broiler, 11 turkey, and 19 spent hen abattoirs representing the majority (around 70%) of the Italian poultry slaughter plants. Data were recorded monthly during a 4-yr period (August 2001 to July 2005), considering a total of 1,266 million chicken broilers, 118 million turkeys, and 54 million spent hens, which represent 67.7, 84.0, and 28.4% of the national production, respectively. The overall average incidence of DOA was found to be 0.35, 0.38, and 1.22% in broilers, turkeys, and spent hens, respectively. The season significantly ($P < 0.01$) influenced the mortality of all considered poultry categories, with higher incidence being observed during the summer (0.47, 0.52, and 1.62% for broilers, turkeys, and spent layers, respectively). The incidence of DOA broilers was found to be lower in small slaughter plants compared with medium and large slaughter plants (0.28 vs. 0.38 and 0.35%, $P < 0.01$). The data obtained in this study might be used for establishing limit values of DOA as a welfare indicator during the preslaughter time of birds, including catching, loading, transportation, and lairage.

Petrini°S, Ferrari°M, Vincenzetti S, Vita A, Amici A, Ramadori G

An immunoenzyme linked assay (ELISA) for the detection of antibodies to Truncated Glycoprotein D (tgD) of bovine Herpesvirus-1

Vet Res Commun. - Vol. 30 suppl 1 (2006). - p 257-259. - 8 bib ref [Nr. Estr. 3317]

Pezzoni°G, Crosatti°M, Brocchi°E

Valutazione di antigeni ricombinanti del capside e transmembrana in test sierologici (ELISA) per la dimostrazione di anticorpi verso i lentivirus dei piccoli ruminanti

VIII Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) : Perugia, 9-10 Novembre 2006 : volume degli atti / [s.l. : Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV), 2006]. - p 51-52. - 2 bib ref [Nr. Estr. 3336]

Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) (8. : Perugia : 9 -10 Novembre 2006)

Small ruminant lentivirus (SRLV) comprise Maedi-Visna virus (MVV) of sheep and caprine arthritis encephalitis virus (CAEV) of goats. Diagnosis of infection is usually done by serological testing using one single viral strain. In order to improve serological diagnosis of SRLV we compared five E.coli expressed MW capsid-transmembrane proteins with whole virus in Elisa test for antibodies detection. Our study showed that the recombinant protein Tm-p25 is a candidate for diagnostic use in SRLV serology.

Pezzoni°G, Crosatti°M, Brocchi°E

Espressione in E. coli e caratterizzazione delle proteine capsidiche e transmembrana di virus Visna-Maedi

VIII Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) : Perugia, 9-10 Novembre 2006 : volume degli atti / [s.l. : Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV), 2006]. - p 351-352. - 3 bib ref [Nr. Estr. 3344]

Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) (8. : Perugia : 9 - 10 Novembre 2006)

Maedi Visna virus (MVV) and caprine arthritis encephalitis virus (CAEV) are closely related lentiviruses that cause chronic inflammatory disease in small ruminants. Diagnosis of infection by serological testing is performed using one single strain, because there is high immunogenetic homology of some structural proteins such as p25, expressed by gag gene, and an epitope of gp40

(TM). In this study we describe the expression of the p25, the polyprotein gag and the p25 fused with a selected TM region in E. coli; the recombinant proteins are coherently recognised by monoclonal antibodies specific to the viral proteins p25 and p16, both in ELISA and western-blot. Furthermore, the recombinant proteins are recognized by immune sera providing the condition to be used as source of antigen in diagnostic assays for antibodies detection.

Pignanelli S, Donati M, Storni E, Mazzeo C, Magnino° S, Renzi°M, Cevenini R

Dati preliminari sull'antigenicità della proteina pgp3 di C. psittaci

Microbiol Med. - Vol. 21 no 3 (2006). - p 198 [Nr. Estr. 3500]

Congresso Nazionale dell'Associazione dei Microbiologi Clinici Italiani (AMCLI) (35 : Torino : 19-22 Settembre 2006)

C. psittaci è un batterio responsabile di un'ampia gamma di infezioni negli animali e di infezioni occasionalmente trasmissibili all'uomo (zoonosi). In questo studio è stata indagata l'antigenicità della proteina pgp3, proteina a codificazione plasmidica, mediante la dimostrazione di anticorpi specifici in corso di infezione. Metodi. La risposta sierologica, nei confronti della proteina ricombinante pgp3 di C. psittaci, è stata studiata mediante la tecnica del Western Blot (WB). I sieri saggiati provenivano da 3 piccioni positivi all'isolamento di C. psittaci e da 220 piccioni indagati a caso. Inoltre è stato studiato 1 siero umano da paziente con polmonite atipica positiva all'isolamento di C. psittaci. Risultati. Sono stati individuati anticorpi specifici anti-pgp3 sia nei sieri di piccione positivi all'isolamento di C. psittaci, sia nel 40% dei sieri di piccione prelevati a caso (88 su 220 sieri testati). Inoltre, il siero del paziente con polmonite atipica, reagiva con pgp3 di C. psittaci. Conclusione. Dai dati preliminari ottenuti in questo studio, la proteina p-p3 si è dimostrata un antigene riconosciuto in corso di infezione attiva e comunque un marcatore di infezione (piccioni).

Pótzsch CJ, Brocchi°E, Grazioli°S, Greiner M, Rozstalnyy A, Staubach C, Sumption K

Estimating the impact of foot-and-mouth disease vaccination in buffer zones in the southern Caucasus - the role of sero – surveillance

Innovation : reshaping veterinary epidemiology : ISVEE XI : handbook & abstracts : 6-11 August 2006, Cairns Convention Centre, Queensland, Australia
/ [Queensland Australia : s.n., 2006]. - p 96 [Nr. Estr. 3552]

International Symposium of International Society for Veterinary Epidemiology and Economics (ISVEE) (11th XI : Queensland Australia : 6-11 August 2006)

A sero-surveillance study was conducted in the foot-and-mouth disease (FMD) vaccination buffer zone in the southern Caucasus region (Armenia, Azerbaijan and Georgia) in 2005. The objectives of the study were to estimate the level of antibodies against structural (SP) and non-structural proteins (NSP) of FMD virus and to describe the geographical distribution of the antibody prevalences as well as to interpret the findings in relation to the effect of vaccination and evidence for circulating infection. The methods applied for interpreting the test results included analysis of the distribution of SP and NSP antibody levels for evidence of infection using descriptive statistics, and the application of spatial analysis to detect clustering of infection. In the three countries, the overall sero-prevalence of antibodies against SP of FMD serotypes A, O and Asia-1 ranged from 47 to 83 %, from 42 to 93 % and from 34 to 93 %, respectively; the overall prevalence of antibodies against NSP ranged from 3 to 15 %. Clustering of NSP antibodies on the village level was found and the results were consistent with, but did not provide proof of a circulation of infection in the buffer zone. It was concluded that in the southern Caucasus buffer zone vaccination appears to have strongly contributed to preventing a large scale spread of FMD infection in the past few years.

Puricelli M, Petrini S, Ferrari° M, Dall'Ara P, Camp itelli L, Barigazzi° G, Vecchi° G

Messa a punto di una metodica ELISA per la ricerca delle immunoglobuline di tipo G (IgG) e A (IgA) nei confronti del virus dell'influenza equina = Development of an ELISA test for the detection of immunoglobulin G (IgA) and A (IgA) to equine influenza virus

SISVET XV Annual Meeting / 2006. - p 169-170. - 4 rif bib [Nr. Estr. 3347]

SISVET Annual Meeting (15 : Terrasini (PA) : 27-30 Settembre 2006)

The aim of this study was to set up an indirect ELISA for detection of the mucosal IgA and serum IgG antibody responses to equine influenza virus (EIV) using as antigen a cell culture adapted A/Equi/Newmarket 02/93 virus. The sera and nasal secretions from the horses immunized with an experimental killed vaccine were tested. The ELISA method has resulted to be capable to detect either the humoral as well as the mucosal response in animals vaccinated and experimental infected with the virulent influenza virus.

Radaelli E, Nigrelli° AD, Rosignoli° C, Tassini F, Formigoni A, Scanziani E

Rilievo clinico-patologici di un focolaio di polmonite interstiziale bovina

Large Anim Rev. - Vol. 12 no 3 (2006). - p 13-16. - 18 bib ref [Nr. Estr. 3540]

Numerosi sono i fattori eziologici che possono contribuire alla patogenesi delle polmoniti interstiziali bovine. Tra questi un ruolo di primaria importanza è svolto dalle infezioni polmonari croniche (virali e batteriche), dalle parassitosi polmonari, nonché dall'esposizione ad allergeni-pneumotossine di origine ambientale, alimentare o derivanti da farmaci. In questo studio sono stati descritti i reperti clinico-patologici di un focolaio di polmonite interstiziale ricorrente in un allevamento di bovini da latte. L'insorgenza di episodi clinici di natura respiratoria non è stata correlata a fattori stagionali, età o momento produttivo-riproduttivo degli animali. Esami sierologici ed indagini microbiologiche condotte sia su tamponi nasali che su lesioni polmonari non hanno evidenziato il coinvolgimento di uno specifico agente eziologico. Valutazioni istologiche effettuate su campioni di lesione polmonare hanno confermato la presenza di fenomeni bronco-angiocentrici di polmonite interstiziale linfo-eosinofila spesso complicata da secondari processi broncopneumonici ad eziologia batterica. I risultati delle diverse valutazioni effettuate hanno permesso di escludere infezioni respiratorie, parassitosi polmonari e squilibri dietetici quali cause primarie del fenomeno patologico in esame. La distribuzione e la natura dell'infiltrato infiammatorio è stata ritenuta indicativa della presenza di fenomeni di ipersensibilità di I o III tipo. In tal senso i principali fattori di rischio coinvolti potrebbero essere verosimilmente rappresentati dalle interazioni antigeniche intercorrenti tra patogeni circolanti, allergeni ambientali, farmaci e presidi immunizzanti.

Bovine interstitial pneumonia represents a pathological condition induced by multiple causative factors such as recurrent bacterial or viral respiratory infections, pulmonary helminthiasis, environmental allergens and pasture- or pharmacological-derived pneumotoxic compounds. In this study the clinico-pathological findings from a dairy cattle herd affected by recurrent interstitial pneumonia are described. Anamnestic data indicated that the onset of clinical signs was not associated with any particular environmental condition or cattle productive-reproductive phase. Serological survey as well as microbiological examination of nasal plugs and pulmonary lesions did not confirm the involvement of specific viral or bacterial pathogens. Microscopically lung lesions examination revealed the presence of broncho-angiocentric, lympho-eosinophilic interstitial pneumonia. These pathological findings were also occasionally complicated by bacterial bronchopneumonia. The data emerging from these evaluations confirm that pasture-derived pneumotoxins as well as specific viral, bacterial or parasitic organisms were not involved in the etiopathogenesis of interstitial pneumonia. On the contrary the distribution and nature of interstitial infiltrates suggest the development of type 1 or type 111 hypersensitivity pneumonitis. Synergistic interactions among different antigens such as environmental allergens, circulating microorganisms,

immunotherapeutic and chemotherapeutic compounds are supposed to trigger these immunopathological processes.

Ricci I, Garbarino°C, Calzolari M

Un recente focolaio di anemia infettiva equina = A recent outbreak of equine infectious anaemia
SISVET XV Annual Meeting / 2006. - p 163-164. - 8 rif bib [Nr. Estr. 3351]
SISVET Annual Meeting (15 : Terrasini (PA) : 27-30 Settembre 2006)

On February 2005 a serological monitoring for Equine Infectious Anaemia Virus (EIAV) at the slaughter house led to find an outbreak of EIAV in Parma Province. It was emanated an injunction of Infected Zone and all equines present in this area have been tested for EIAV. 26 subjects have been characterized as positives for EIAV in an area with 115 equines. Mostly of Bardigian race, bred for meat production. Captures of insects, were planned due to the transmission rute of this pathology. Haematopota pluvialis and Hippobosca equina where collected and identified. All positives horses were born within 2002, when occurred an episode of horse dead at pasture, but for absence of diagnostic elements it is possible only- to make hypothesis. For health reason and safeguard of the race, outbreak was closed slaughtering all horses serologically positive for EIAV.

Roncada P, Begni B, Amadori°M, Cristini S, Archetti° IL, Boldetti°C, Fortin R, Deriu F, Greppi GF

Indicatori proteomici sierici di benessere nel suino = Blood serum proteome for welfare evaluation in pigs
SISVET XV Annual Meeting / 2006. - p 277-278. - 4 bib ref [Nr. Estr. 3348]
SISVET Annual Meeting (15 : Terrasini (PA) : 27-30 Settembre 2006)

Aim of this study is to evaluate with proteomic techniques the welfare of pigs on blood serum The serum is a biological matrix suitable for proteome analysis. Trio dimensional electrophoresis has been performed on serum from pigs. Resulting 2-DE maps and subsequent1y analysis in MALDI-TOF mass spectrometry showed that some proteins such as haptoglobin, annexin IV,, apolipoprotein A, fetuin are biomarker of the immunity. and welfare conditions of pigs. These results are in according to classic methods to detect the immunity.

Rosignoli°C, Nigrelli°AD, Franzini°G, Faccini°S, N ardi°M, Favalli F, Bottoli E, Costa A

La mastite da Prototheca zopfii nel bovino = Bovine mastitis due to Prototheca zopfii
Prax Vet. - Vol. 27 no 2 (2006). - p 2-8. - 48 bib ref [Nr. Estr. 3292]

Negli allevamenti di bovine da latte è sempre più frequente il riscontro di mastite da Prototheca zopfii, un'alga unicellulare priva di clorofilla. La patologia è localizzata esclusivamente all'apparato mammario, ha una evoluzione cronica ed è refrattaria ai trattamenti antibiotici. In alcune mandrie questa infezione può coinvolgere diversi soggetti contemporaneamente. Le ricerche non hanno per ora chiarito se tali focolai dipendano dalla elevata presenza delle microalghe nell'ambiente oppure dal-la possibilità che il contagio si realizzi tra animale infetto e animale sano durante le operazioni di mungitura. Il controllo dell'infezione si basa sull'eliminazione dei fattori che possono essere all'origine della contaminazione ambientale, sull'aumento del livello igienico generale e sulla mungitura separata e successiva eliminazione dei soggetti infetti.

It is currently apparent that mastitis due to Prototheca zopfii, an achlorophyllic unicellular alga, is

becoming recognized more frequently in dairies. The infection involves only the mammary gland, has a chronic evolution and is unresponsive to treatment. In some herds this mastitis has been recognized in several animals in the same time. Environmental contamination and protothecal infected cows are potential sources of new infections. For controlling this type of mastitis is necessary to decrease the number of organisms in the environment. Furthermore all cows with protothecal mastitis should be immediately separated and quickly removed from the herd to prevent possible spread.

Rosignoli°C, Nigrelli°AD, Franzini°G, Nardí°M, Guizzardi°S, Bottoli E, Favalli F
Indagine preliminare sulla presenza ambientale di Prototheca zopfii in allevamenti di bovine da latte = Preliminary investigation on the presence of Prototheca zopfii in dairy herds environment
Buiatria. - Vol. no 2 (2006). - p 45-53. - 25 bib ref [Nr. Estr. 3382]

Lo scopo di questo lavoro è quello di dare un contributo alla comprensione di alcuni aspetti relativi all'epidemiologia dell'infezione mammaria da Prototheca zopfii nel bovino. Da un punto di vista operativo è stata effettuata la ricerca della microalga in matrici ambientali prelevate in aziende di bovine da latte. Quattro allevamenti sono stati inseriti nella ricerca, 2 con infezioni mammarie da Prototheca zopfii e 2 storicamente senza questo tipo di mastite. In ogni mandria sono stati sottoposti ad esame microbiologico i seguenti campioni: mangimi (n=3), foraggi secchi (n=4), insilato di mais (n=1), unifeed (n=2), acqua dagli abbeveratoi (n= 3), tamponi sulle superfici degli abbeveratoi (n=7), paglia (n=2), feci di vacche in lattazione (n=10), feci di vitelli lattanti (n=3) e tamponi dalle guaine del gruppo di mungitura (n=5). Considerando i dati globalmente Prototheca zopfii è stata isolata da 34 campioni (21,3%) su un totale di 160. Solo una positività è stata riscontrata nei campioni prelevati nelle stalle senza protothecosi. Da questi dati emerge una significativa differenza nella frequenza di isolamento di Prototheca zopfii tra stalle con mastiti da Prototheca rispetto a quelle in cui storicamente non è mai stata rilevata questa specifica infezione mammaria.

The aim of this study is to explain some aspects of the epidemiology of bovine mammary gland infection due to Prototheca zopfii through the evaluation of the presence of the microorganisms in environmental samples collected in some dairy herds. Four dairies were included in this survey, 2 herds with protothecal mammary infections and 2 herds without a history of this kind of mastitis. In each farms the following environmental samples were collected for microbiological examination: ground feeds (n=3), haylage (n=4), corri silage (n=1), unifeed (n=2), water from drinking troughs (n=3), swabs from surfaces of drinking troughs (n=7), straw for bedding (n=2), feces from lactating cows (n=10), feces from calves (n=3) and swabs from teat cup rubber during milking (n=5). Prototheca zopfii was isolated from 34 (21,3%) of the 160 samples. Only 1 strain was isolated from samples in the two dairy herds without cases of protothecosis infections. There was a significant difference in the isolation frequency of Prototheca zopfii from dairies with protothecal mastitis in relation to herds without a history of this mammary infection.

Sassera D, Beninati T, Bandi C, Bouman EAP, Sacchi L, Fabbí°M, Lo N
'Candidatus Midichloria mitochondrii', an endosymbiont of the tick Ixodes ricinus with a unique intramitochondrial lifestyle

Int J Syst Evol Microbiol. - Vol. 56 (2006). - p 2535-2540. - 24 bib ref [Nr. Estr. 3538]

An intracellular bacterium with the unique ability to enter mitochondria exists in the European vector of Lyme disease, the hard tick Ixodes ricinus. Previous phylogenetic analyses based on 16S rRNA gene sequences suggested that the bacterium formed a divergent lineage within the Rickettsiales (Alphaproteobacteria). Here, we present additional phylogenetic evidence, based on the gyrB gene sequence, that confirms the phylogenetic position of the bacterium. Based on these data, as well as electron microscopy (EM), in situ hybridization and other observations, we propose the name 'Candidatus Midichloria mitochondrii' for this bacterium. The symbiont appears to be ubiquitous in females of I. ricinus across the tick's distribution, while lower prevalence is observed in males (44%). Based on EM and in situ hybridization studies, the presence of 'Candidatus M. mitochondrii' in females appears to be restricted to ovarian cells. The bacterium was found to be localized both in

the cytoplasm and in the intermembrane space of the mitochondria of ovarian cells. 'Candidatus M. mitochondrii' is the first bacterium to be identified that resides within animal mitochondria.

Scala A, Garippa G, Varcasia A, Tranquillo VM, Genchi C

Cystic echinococcosis in slaughtered sheep in Sardinia (Italy)

Vet Parasitol. - Vol. 135 nr. 1 (2006). - p 33-38 - 28 bib ref [Nr. Estr. 3402]

Of 771 regularly slaughtered Sardinian breed sheep, 580 (75%) were found infected with Echinococcus granulosus hydatid cysts. Seventy-nine sheep (10.3%) had at least 1 fertile cyst. The prevalence of sheep infected with purulent/caseous cysts, calcified cysts and sterile cysts was 13, 59 and 28%, respectively. The age of sheep was positively associated with the probability of infection that increased 1.15 fold for each further year of age. Fertile cysts were found in the lungs of 46 sheep (6%) and in the liver of 13 sheep (1.7%), and in the lung and the liver of 20 sheep (2.6%). Most fertile cysts were found in the lungs (314) and most sheep were infected with less than 10 cysts. When analyzed by a mixed-effect logistic model, the probability to find fertile cysts in the lungs was three times higher compared to the liver and it increased with the age of the sheep ($p = 0.70$, $p < 0.001$). Of 4072 collected cysts, 532 were fertile, 178 purulent/caseous, 2339 calcified and 1023 sterile.

Sozzi E, Moreno A, Luppi A, Lelli D, Cattoli G, Lombardi G, Cordioli P

Studio sulla trasmissione dei virus influenzali aviari al suino = Study on avian influenza virus transmission to pigs

Atti Convegno SIPAS. - Vol. 32 (2006). - p 193-198. - 19 bib ref [Nr. Estr. 3528]

Meeting annuale della Societa' Italiana di Patologia ed Allevamento dei Suini : Modena, 23-24 Marzo 2006. Comunicazioni scientifiche (32. : Modena : 23-24 Marzo 2006)

E' stata condotta una serie d'indagini per valutare la possibilità di trasmissione dei virus influenzali aviari, isolati in epidemie verificatesi in allevamenti avicoli nel nord Italia, a suini SPF. Questi ultimi sono stati sperimentalmente infettati per via intra-tracheale con H7N1 HPAI, H7N3 LPAI e H5N2 LPAI e in seguito sono stati posti a stretto contatto con altri suini SPF. I risultati di questo lavoro hanno evidenziato la comparsa di sieroconversione sia negli animali infettati con i ceppi LPAI sia in quelli inoculati con il ceppo HPAI. Tuttavia, solo quest'ultimo ha dimostrato di replicare nel tratto respiratorio superiore dei suini e di essere eliminato attraverso le secrezioni respiratorie senza essere in grado, tuttavia, d'infettare i suini posti in stretto contatto.

In this study the transmission of three strains of avian influenza virus in SPF pigs has been evaluated. All strains, A/Ty/Italy/2962/02 H7N3 LPAI, A/Ck/Italy/1347/99 H7N1 HPAI and A/Ty/Italy/90302/05 H5N2 LPAI were isolated from Northern Italy outbreaks. SPF pigs, following infection by intra tracheal inoculation, were put in strict contact with other SPF pigs in order to assess the possibility of transmission from pig to pig. The results of this study showed that avian influenza virus can infect pigs and seroconversion was observed in all the inoculated animals. Viral shedding was demonstrated only with the H7N1 HPAI. No transmission from infected pigs to contact ones was observed.

Sozzi E, Nassuato C, Luppi A, Lelli D, Moreno A, Cordioli P

Studio sulla trasmissione dei virus influenzali aviari al suino = Study on avian influenza virus transmission to pigs

Atti Convegno SIPAS. - Vol. 32 (2006). - p 189-191. - 7 bib ref [Nr. Estr. 3529]

Meeting annuale della Societa' Italiana di Patologia ed Allevamento dei Suini : Modena, 23-24 Marzo 2006. Comunicazioni scientifiche (32. : Modena : 23-24 Marzo 2006)

E' stato eseguito uno studio sierologico in 216 allevamenti suini della Lombardia per definire la situazione epidemiologica nei confronti dell'influenza suina. 3427 sieri sono stati esaminati in ELISA per l'identificazione di anticorpi verso antigeni specifici del gruppo. L'indagine sierologica evidenzia una sieroprevalenza del 98,2% e conferma che il virus dell'influenza suina è largamente diffuso negli allevamenti della Lombardia.

A total of 3427 serum samples from 216 farms of Lombardia were examined for antibody to swine influenza A virus using enzyme-linked immunosorbent assay (ELISA). All serum samples were collected between march 2004 and November 2005. The results showed that antibodies against influenza A virus were present in a great number of farms (99,5%). Our data suggested that seropositive herds for influenza A virus are widely distributed throughout the Lombardia.

Taddei°R, Belletti°GL, Beltrami A, Tamba°M, Arri goni°N

Ricerca di Mycobacterium avium subsp. paratuberculosis (Map) da feci bovine: confronto tra quattro differenti metodi PCR

VIII Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) : Perugia, 9-10 Novembre 2006 : volume degli atti / [s.l. : Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV), 2006]. - p37-38. - 4 bib ref [Nr. Estr. 3386]

Congresso Nazionale Societa' Italiana Diagnostica di Laboratorio Veterinaria (SIDiLV) (8. : Perugia : 9 -10 Novembre 2006)

Four different PCR protocols based on three commercially available assays for detection of Mycobacterium avium subsp. paratuberculosis (Map) from fecal samples, were compared. The methods included both traditional PCR and Real Time PCR, coupled with different extraction strategies, based on chemical lysis or mechanical/chemical lysis. Sensitivity of the assays resulted not related to the amplification protocols tested, while resulted positively affected by the introduction, in DNA extraction procedure, of a mechanical disruption step.

Tagliabue°S, Pennelli°D, Nassuato C, D'Incau°M, Tranquillo°VM, Gennero S, Nardelli S, Moscati L, Scicluna MT, Scacchia M, Baldi L, Scaltrito D, Currò V, Ponti N

Attività di sorveglianza sierologica della leptospirosi negli anni 2001-2003. Ricadute operative a livello nazionale

Medicina umana, medicina veterinaria e tutela dell'ambiente: possibili sinergie in sanità pubblica : riassunti : Istituto Superiore di Sanità Roma, Perugia 12-13 Giugno 2006 / a cura di Gaia Scavia ... [et al.]. - Roma : Istituto Superiore di Sanità, 2006. - (ISTISAN congressi ; 06/C4) p 100 [Nr. Estr. 3480]

Workshop nazionale di epidemiologia veterinaria : Perugia : Perugia 12-13 Giugno 2006)

Tagliabue°S, Tranquillo°V, Nassuato C, Pennelli°D, D'Incau°M

Seroepidemiological study on swine leptospirosis in Lombardy Region (Northern Italy)

International Pig Veterinary Society : the 19th Congress (IPVS) : 16-19 July 2006 Copenhagen, Denmark : proceedings / [Copenhagen : International Pig Veterinary Society, c2006]. - cdrom p 524. - 3 bib ref [Nr. Estr. 3506]

International Pig Veterinary Society Congress (IPVS) (19th : Copenhagen, Denmark : 16-19 July 2006)

Tamba°M, Dottori°M, Bonilauri°P, Massi°P, Cordiol i°P, Fallacara°C

Unpredicted circulation of a Vaccine Strain of Blue Tongue Virus Serotype 2 in cattle of Northern Italy

Innovation : reshaping veterinary epidemiology : ISVEE XI : handbook & abstracts : 6-11 August 2006, Cairns Convention Centre, Queensland, Australia / [Queensland Australia : 2006]. - p 289 [Nr. Estr. 3311]

International Symposium of International Society for Veterinary Epidemiology and Economics (ISVEE) (11th : Queensland Australia : 6-11 August 2006)

Blue Tongue Virus (BTV) is present in Italy since 2000; disease outbreaks were reported only on the islands, Sardinia and Sicily and in some Southern Provinces of the Country. Actually four different serotypes of BTV are circulating in Italy: BTV2, BTV4, BTV9, and BTV16. Since 2001 an eradication plan based on compulsory vaccination with live vaccines of cattle, sheep and goats has been implemented in all the provinces involved in BTV circulation. A serological and entomological surveillance programme is being run to distinguish free areas from those infected in which ruminant movements are restricted. Nevertheless after 30 days from vaccination the animals are free to move inside the Country. In spring 2004 for the first time 15 BTV2 seropositive cattle herds (42 positive samples) were detected in the mountain area (Appennino) of the Forli-Cesena province. This area is more than 100 km far from the nearest vaccination zone. Serological and entomological surveillance activities carried out during summer 2004 proved circulation of a BTV2 vaccine strain: the virus was both isolated from seropositive cattle and detected by PCR in vector *Culicoides obsoletus*. A serological survey carried out during winter 2004-05 in the same area showed increased prevalence in cattle from 15% to 71% at herd level, and from 2% to 17% at individual level. BTV2 vaccine strain circulation was confirmed also during summer 2005. Probably because of vaccinated cattle movements a BTV2 vaccine strain is actually endemic in the mountain area of Forli-Cesena Province. Therefore eradication plan targets must be revised and it is necessary to plan a new surveillance programme in which free BTV vaccine strains circulation is considered.

Tarocco C, Cozzolino C, Tranquillo°M, Nassuato C

Ricerca su alcuni parametri per la comparsa del parto non assistito nella scrofa = Research on some parameters for not assisted farrowing in sow

Atti Convegno SIPAS. - Vol. 32 (2006). - p 317-323. - bib ref 10 [Nr. Estr. 3524]

Meeting annuale della Societa' Italiana di Patologia ed Allevamento dei Suini : Modena, 23-24 Marzo 2006. Comunicazioni scientifiche (32. : Modena : 23-24 Marzo 2006)

La ricerca di tre caratteristiche nelle scrofe in pre-parto trattate con prostaglandine, quali lo stato di paura dell'uomo, la durata della gestazione e il numero di nati morti in carriera, ha dimostrato che essi, almeno in questo campione di animali, non possono essere considerati condizioni per la comparsa del parto non assistito, avvenuto cioè al di fuori dell'orario di lavoro.

The research of three parameters in pre-farrowing sows treated with prostaglandin, as the fear of man, the length of pregnancy and stillborn number from the out career, showed that these cannot be considered as conditions for the appearance of a non assisted farrowing, i.e. out of the working time.

Tranquillo°MV, Nassuato C, Giorgi M, Boldini M, Zana rdi°G

Biosicurezza dell'allevamento bovino da riproduzione: costruzione e validazione di una scala di misura

Medicina umana, medicina veterinaria e tutela dell'ambiente: possibili sinergie in sanità pubblica : riassunti : Istituto Superiore di Sanità Roma, Perugia 12-13 Giugno 2006 / a cura di Gaia Scavia ... [et al.]. - Roma : Istituto Superiore di Sanità, 2006. - (ISTISAN congressi ; 06/C4) p 106 [Nr. Estr.

Con biosicurezza si indica un fenomeno composito poiché contempla una svariata gamma di misure atte a prevenire o ridurre l'introduzione di nuovi patogeni in azienda e a minimizzare la circolazione di quelli già presenti. I sistemi di rilevazione delle strategie di biosicurezza si basano sulla compilazione di check list. Alcune di queste si pongono l'obiettivo di produrre una misura sintetica, che permetta di qualificare il grado di biosicurezza attraverso l'integrazione di tutte le informazioni raccolte. La misura della biosicurezza, trattandosi di un "fenomeno" multidimensionale, però pone alcuni problemi di natura metodologica e in particolare quando si cerca di ottenere una valutazione oggettiva del fenomeno. La strategia di attribuire ai differenti elementi di biosicurezza un "peso" soggettivo mostra tutti i suoi limiti proprio nella soggettività insita in questa procedura, che fornisce valutazioni non affidabili del fenomeno che si vuole indagare. Per ovviare a questo problema si deve fare affidamento a metodi di analisi dei dati che hanno il loro fondamento nella teoria della misurazione e in particolare nella Teoria Classica dei Test. In sostanza si tratta di costruire un questionario in cui sono elencate una serie di item, che rappresentano diversi aspetti del fenomeno che si vuole misurare. Ogni singolo item può essere misurato mediante sistemi dicotomici (presenza/assenza) o tramite scale ordinali. La somma dei risultati ottenuti nei singoli item fornisce un punteggio globale o Global Score, che rappresenta la "misura" oggettiva del fenomeno che si vuole studiare. La teoria sottostante a questa metodologia afferma, in sintesi, che gli item selezionati e inseriti nel questionario misurano e sono correlati direttamente con una variabile latente (cioè non visibile direttamente), che rappresenta il fenomeno d'interesse del ricercatore. Sulla base di questi elementi è stato condotto uno studio inteso alla costruzione e validazione di uno strumento in grado di fornire una misura oggettiva della biosicurezza negli allevamenti di bovini da riproduzione presenti nel territorio dell'ASL di Cremona. Sono stati indagati complessivamente 97; allevamenti attraverso l'utilizzo di un questionario che contemplava una sezione dedicata alla biosicurezza costituita da 48 item dicotomici. Il processo di validazione ha permesso di ottenere una scala costituita da 19 item, la cui omogeneità interna misurata attraverso il coefficiente α di Cronbach è risultata essere pari a 0,87, e l'unidimensionalità misurata attraverso l'indice t di Greenacre di 0,81. Tali coefficienti indicano che la scala fornisce misure affidabili della variabile latente indagata ovvero la Biosicurezza.

Vanini G, Costa A, Comini M, Bellocchio F, Angelelli B, Faccini S, Rosignoli C, Nigrelli AD

Indagine su 8 casi di "Hemorrhagic Bowel Syndrome", rilevati in sede di macellazione, in bovine da latte allevate in Pianura Padana

Buiatria. - Vol. no 2 (2006). - p 79-88. - 23 bib ref [Nr. Estr. 3381]

Otto bovine di razza Frisona italiana, allevate tutte in allevamenti della Pianura Padana, sono state inviate alla macellazione a causa di una caduta repentina della produzione latte. Alla visita post mortem hanno presentato lesioni riferibili a Sindrome Emorragica del Digiuno (SED), internazionalmente conosciuta come Hemorrhagic Bowel Syndrome (HBS) o Jejunal Hemorrhage Syndrome (JHS). Il contenuto intestinale è stato inviato al laboratorio in cui sono stati condotti esami microbiologici, parassitologici e biomolecolari. Inoltre sono state raccolte informazioni negli allevamenti da cui provenivano gli animali al fine di valutare la presenza di eventuali fattori di rischio nell'insorgenza di questa sindrome.

Eight italian friesian cows, all bred in herds of the Pianura Padana, were sended to the slaughterhouse because of a sudden loss of milk production. At the post mortem examination they shown lesions correlated to the Sindrome Emorragica del Digiuno, internationally known as Hemorrhagic Bowel Syndrome (HBS) or Jejunal Hemorrhage Syndrome (JHS). The intestinal content was send to the laboratory where microbiological, virological, parasitological and biological molecular exams were performed. Moreover we collected informations from herds of the eight cows to point out possible risks factors in the rising of this syndrome.

Varisco°G, Bolzoni°G, Bertocchi°L, Daminelli°P, Finazzi°G, Boni°P

La sorveglianza epidemiologica degli allevamenti

Buiatria. - Vol. no 4 (2006). - p 57-66 [Nr. Estr. 3559]

Vecchi°G, Usberti R, Tamba°M, Dottori°M, Bonilauri°P, Massi°P, Cordioli°P, Fallacara°C, Bovo A

Circolazione autonoma di virus BT sierotipo 2 di origine vaccinale nella provincia di Forlì-Cesena

(I ; Large Anim Rev. - Vol. 12 no 3 (2006). - p 3-11. - 14 bib ref [Nr. Estr. 3533]

La Blue Tongue (BT) è presente in Italia dal 2000. Attualmente sono presenti in Italia quattro diversi sierotipi: 2, 4, 9, 16. Dal 2001 la BT è oggetto di un piano di eradicazione basato sulla vaccinazione obbligatoria con vaccino vivo attenuato di: bovini, ovini e caprini nelle aree in cui circola il virus di campo. In tutto il territorio nazionale è inoltre attivo un piano di sorveglianza entomologica e sierologica per definire le aree libere da infezione e quelle nelle quali le movimentazioni animali sono limitate. Gli animali vaccinati sono comunque liberi di muoversi trascorsi 30 giorni dalla vaccinazione. Nella primavera del 2004 sono stati individuati 15 allevamenti con 42 bovini sieropositivi per il sierotipo 2 della BT (BTV2) in un'area dell'Appennino forlivese, posta a oltre 100 km dalla zona di vaccinazione. Attraverso la sorveglianza entomologica e sierologica integrativa nella stessa area è stato possibile dimostrare la circolazione virale di un BTV2 di origine vaccinale durante l'estate del 2004: il virus è stato isolato da bovini e individuato tramite PCR nel vettore *C. obsoletus*. Un monitoraggio svolto nell'inverno 2004-05 nell'area interessata ha mostrato che durante l'estate 2004 la prevalenza di infezione negli allevamenti è passata dal 15% al 71 % e nei capi dal 2% al 17%. Circolazione virale del ceppo di BTV2 vaccinale è stata rilevata anche durante l'estate 2005. Si ritiene che nell'Appennino forlivese si sia creata una zona di endemia da BTV2 vaccinale e che alla luce di questa scoperta debbano essere rivisti gli obiettivi del piano di eradicazione e progettato un programma di sorveglianza che tenga conto del fatto che il BTV vaccinale può diffondersi autonomamente.

*Blue Tongue Virus (BTV) is present in Italy since 2000; disease outbreaks were reported only on the islands, Sardinia and Sicily and in some Southern Provinces of the Country. Actually four different serotypes of BTV are circulating in Italy: BTV2, BTV4, BTV9, and BTV16. Since 2001 an eradication plan based on compulsory vaccination with live vaccines of cattle, sheep and goats has been implemented in all the provinces involved in BTV circulation. A serological and entomological surveillance programme is being run to distinguish free areas from those infected in which ruminant movements are restricted. Nevertheless after 30 days from vaccination the animals are free to move inside the Country. In spring 2004 for the first time 15 BTV2 seropositive cattle herds (42 positive samples) were detected in the mountain area (Appennino) of the Forlì-Cesena province. This area is more than 100 km far from the nearest vaccination zone. Serological and entomological surveillance activities carried out during summer 2004 proved circulation of a BTV2 vaccine strain (BTVV-2): the virus was both isolated from seropositive cattle and detected by PCR in vector *Culicoides obsoletus*. A serological survey carried out during winter 2004-05 in the saure area (Municipalities of Bagno di Romagna, Mercato Saraceno, Sarsina, Sogliano A/R, and Verghereto) showed increased prevalence in cattle from 15% to 70% at herd level, and from 2% to 21 % at individual level, BTVV-2 strain circulation was confirmed also during summer 2005. Probably because of vaccinated cattle movements BTVV-2 strain is actually endemic in the mountain area of Forlì-Cesena Province. Therefore control plan targets must be revised and it is necessary to plan a new surveillance programme in which BTVV-2 active circulation is considered.*

Vezzoli°F

Malattia respiratoria suina: la valutazione in allevamento (diagnosi eziologica ed ambientale)

= Diseases of the Respiratory Sistem: the valuation in breeding (aetiological and ambiental diagnosis)

Atti del XXIX Corso in patologia suina e tecnica dell'allevamento : Brescia, 04 Ottobre - 13 Dicembre

2005 / a cura di Loris Alborali, Maddalena De Cillà. - Brescia : Fondazione Iniziative Zooprofilattiche e Zootecniche, 2006. - (Atti delle Giornate di Studio Fondazione Iniziative Zooprofilattiche e Zootecniche ; 64) p 117-123. - 30 bib ref [Nr. Estr. 3376]

Corso in patologia suina e tecnica dell'allevamento (29 : Brescia : 04 Ottobre - 13 Dicembre 2005)

Le patologie respiratorie hanno una causa infettiva determinante, è un fatto generalmente accettato che la qualità dell'aria e le condizioni in cui sono tenuti gli animali, così come la loro gestione, possono influenzare il decorso dell'infezione. Vengono passate in rassegna le principali tecniche diagnostiche ed in che modo la qualità dell'aria può influire sulle patologie respiratorie.

Respiratory diseases have a determinant infective cause, and it is generally accepted that air quality, herd conditions and management of animals can influence the course of infection. We present here principals, diagnostic techniques and the way in which air quality can influence respiratory diseases.

Vezzoli°F

Vaccinazione e biosicurezza controllano la malattia

Riv Suinic. - Vol. 47 no 10 (2006). - p 116-118 [Nr. Estr. 3389]

Negli allevamenti l'eradicazione della patologia non può essere garantita dal solo vaccino. È infatti indispensabile adottare scrupolose procedure di pulizia e sanificazione degli ambienti. Che oltre ad essere efficaci sul piano gestionale, lo sono anche da un punto di vista economico.

Zanardi°G

Vaccinazione e biosicurezza controllano la malattia : il piano di controllo non può bastare

Riv Suinic. - Vol. 47 no 10 (2006). - p 126-129 [Nr. Estr. 3390]

Per nove anni Lombardi e Emilia Romagna hanno adottato un sistema di sorveglianza della malattia. L'elaborazione dei dati raccolti ha permesso di stabilire che nella prima regione la sieroprevalenza è passata da un iniziale 83% al 40%, mentre nella seconda l'81,3 si è ridotto al 28,9%.

Zanardi°G, Avisani d, Bonazza V, Cordioli°P

Outbreaks of low pathogenic H5N2 Avian influenza in Lombardy Region (Italy) occurred in 2005

Innovation : reshaping veterinary epidemiology : ISVEE XI : handbook & abstracts : 6-11 August 2006, Cairns Convention Centre, Queensland, Australia / [Queensland Australia : 2006]. - p 303 [Nr. Estr. 3310]

International Symposium of International Society for Veterinary Epidemiology and Economics (ISVEE) (11th : Queensland Australia : 6-11 August 2006)

During the last five years in Lombardy region occurred three avian influenza epidemics: H7N1 Low Pathogenic Avian Influenza (LPAI) in 1999, H7N1 Highly Pathogenic Avian Influenza (HPAI) in 2000, H7N3 LPAI in 2002. Epidemiological inquiries have showed that the starting point of all these epidemics was situated in a densely populated poultry area in the province of Brescia, included in the vaccination zone. In fact, since the end of 2002 is in force an LPAI emergency vaccination programme through a heterologous bivalent subtype vaccine (H5-H7) in meat turkey and laying hens farms. Again in April 2005 a LPAI virus (H5N2) was detected in meat turkeys in the same area.

From 12th of April to 10th of May 2005, 15 LPAI outbreaks in meat turkey farms were detected. On 15 June 2005 a timely stamping out of 230,000 animals closed all the outbreaks. Almost all outbreaks were localized in the vaccination area. During May and June 2005, monitoring plan that foresees three controls (serological and/or virological) was carried out. About 200 poultry farms were controlled in the surveillance zone of the detected outbreaks. So far no other outbreaks have occurred.

Zanardi°G, Avisani D, Nassuato C, Tranquillo°V

Evaluation of Italian Aujeszky Disease Control programme in Lombardy Region (Italy) from 1997 to 2004

Innovation : reshaping veterinary epidemiology : ISVEE XI : handbook & abstracts : 6-11 August 2006, Cairns Convention Centre, Queensland, Australia / [Queensland Australia : 2006]. - p 289 [Nr. Estr. 3312]

International Symposium of International Society for Veterinary Epidemiology and Economics (ISVEE) (11th : Queensland Australia : 6-11 August 2006)

Since 1997 a compulsory control programme on Aujeszky's disease, based on prophylactic measures and on vaccination of all the swine reared, is managed on the whole Italian territory. A national control programme of the Aujeszky's disease in the swine species started on the basis of the Ministry of Health decree law enacted on the 1st April 1997. All herds with more than six sows must be serologically tested. Since a prevalence hypothesized in each swine category of 80% (CI 95%), the herd sample numerosity necessary to reveal at least a positive reaction is 12 for closed cycle herd type (3 first parity sows, 3 older sows, 3 grower and 3 fattening pigs) and 6 for the open cycle herd one (3 first parity sows and 3 older sows). In Lombardy region the control of the Aujeszky's disease is managed together with the Surveillance national programme of the Swine Vesicular Disease and of the Classical Swine Fever; once a year breeding herds are blood drawn by the veterinarians of the local veterinary unit and serologically tested. The aim of this study is to present the results achieved in Lombardy region after eight years of the national programme (1997-2004) and to evaluate the seroprevalence trend of the Aujeszky's disease in breeding swine herds. Seroprevalence in open-cycle herds category has diminished from 0.74 (CI 95% 0.66-0.80) to 0.36 (CI 95% 0.32-0.40) and in closed-cycle herds type has diminished from 0.91 (CI 95% 0.86-0.94) to 0.41 (CI 95% 0.37-0.46).

Zanardi°G, Bonacina°C

Epidemiologia dell'influenza aviaria H5N1 in Asia

Riv Avic. - Vol. 75 no 2 (2006). - p 40-46 [Nr. Estr. 3251]

Zarenghi L, Rastelli G, Barigazzi°G

Un grave episodio di mortalità da botulismo in un allevamento di bovini da rimonta = Survey on paratuberculosis prevalence in dairy herds of the Lombardia Region

Buiatria. - Vol. no 1 (2006). - p 137-143 - 10 bib ref [Nr. Estr. 3300]

Gli autori descrivono un grave episodio di mortalità da botulismo verificatosi in un allevamento di bovini da rimonta: nell'arco di 30 giorni la mortalità ha interessato il 43% dei capi presenti (99 su 230) mentre la morbilità oltre l'80%. La concomitante presenza di una enterotossinemia da clostridi complicava il quadro clinico e diagnostico, solo dopo numerosi tentativi si riusciva a dimostrare con prova biologica sui topi la presenza di una tossina termolabile, riferibile a quella botulinica. Negli allevamenti zootecnici che utilizzano moderni sistemi di alimentazione (es. unifeed) il botulismo può essere considerato a tutti gli effetti una "tecnopatia". Gli autori propongono, per la tutela della salute

pubblica, di introdurre il botulismo nell'elenco delle malattie soggette a denuncia obbligatoria.

A high fatality rate botulism outbreak in a dairy heifers herd is described: 99 out of 230 (43%) animals died in a 30 days period while the morbidity was over 80%. The clinical and diagnostical signs were complicated by a contemporary clostridial enterotoxiemia. The presence of a heatlabile toxin, C. botulinum like toxin, was demonstrated by mouse inoculation bioassay only after several attempts. In cattle herds where the "unifeed" system is employed, C. botulinum intoxication might be indeed considered a "technopathy". For public health defence botulism intoxication should be added to the list of notifiable diseases.