

Contents

Classical swine fever in Malaysia (Peninsular)	167
New lyssavirus in fruit bats in Australia	168
Classical swine fever in Haiti	169
Bovine spongiform encephalopathy in Portugal	170
Foot and mouth disease in Kuwait	171
Crimean-Congo haemorrhagic fever in South Africa	171

CLASSICAL SWINE FEVER IN MALAYSIA (PENINSULAR)

Text of a fax received on 1 November 1996 from Dr A.M. Babjee, Delegate of Malaysia to the OIE:

S. R. - 1

Nature of diagnosis: clinical and laboratory.

Date of initial detection of animal health incident: 26 October 1996.

Estimated date of first infection: 17 October 1996.

Number of separate outbreaks identified so far: one (1).

Geographical identification of the outbreak: 5° 30' N - 100° 23' E, Seberang Prai Utara district, State of Penang.

Details concerning the outbreak:

No.	Species	No. of animals in the outbreak	No. of cases	No. of deaths	No. of animals destroyed	No. of animals slaughtered
1/96	sui	400	...	150	0	0

Comments concerning affected population: the affected population was from a single farm. Other nearby farms were not affected by the disease.

Comments to date concerning epidemiology of the disease: the classical swine fever vaccination programme had been neglected in the affected farm.

Control measures taken to date: quarantine of the affected animals; disinfection; surveillance and vaccination programme.

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NEW LYSSAVIRUS IN FRUIT BATS IN AUSTRALIA

Extract from a fax received on 2 July 1996 from Dr G. Murray, Chief Veterinary Officer, Department of Primary Industries and Energy, Canberra:

History

A sick black fruit bat (*Pteropus alecto*), which had been found on a roadside in suburban Ballina in northern coastal New South Wales (NSW), was submitted by a 'bat carer' to the NSW Wollongbar regional veterinary laboratory. The fruit bat was unable to fly and exhibited a mild tremor.

The laboratory performed an autopsy and collected blood and tissues for examination. Tissues were submitted to the Animal Research Institute (ARI), Yeerongpilly, Queensland, for equine morbillivirus (EMV) examinations and to the Australian Animal Health Laboratory (AAHL), Geelong, for EMV and rabies exclusion.

Laboratory findings

The post-mortem findings were unremarkable. Histopathology found a severe, diffuse, non-suppurative encephalitis. This is consistent with the clinical signs.

Results were negative for EMV.

Immunoperoxidase testing was positive for lyssavirus. The reactivity was restricted to brain and gastrointestinal tract nerve cells; other tissues were negative.

Fluorescent antibody tests for lyssavirus antigen were positive. Electron microscopy showed viral inclusion bodies in neurones. Virus-like structures strongly indicating a rhabdovirus infection were seen, although classical 'bullet shaped' particles were not seen, probably due to the fixation used.

A serum neutralisation test on the bat's blood was negative in the rabies test (i.e. lyssavirus serotype 1 classical rabies virus). However, it is recognised that the animal may have died before antibodies had had time to develop.

Extract from a fax received on 11 September 1996 from Dr G. Murray:

A second fruit bat, from Townsville (northern Queensland), which presented neurological signs, was recently submitted to necropsy. The reactivity in this fruit bat's brain was identical to the reactivity seen in the NSW isolate. The NSW virus and this Queensland virus are closest to genotype 1 and genotype 5, compared to other lyssaviruses.

An isolate has been sent to the Centers for Disease Control (CDC), Atlanta, United States of America, for identification and characterisation of the virus.

Extract from a fax received on 8 November 1996 from Dr G. Murray:

Lyssavirus has now been isolated from five samples in total from two species of fruit bats: the black fruit bat (*Pteropus alecto*) and the little red fruit bat (*Pteropus scapulatus*). These samples were from sick animals found in Townsville, coastal south-east Queensland and northern coastal New South Wales.

The Queensland Health Authorities advise the first case of transmission of the virus in Australia to an animal handler from Rockhampton (Queensland) who had cared for injured bats. The woman is in a serious condition in Royal Brisbane Hospital. We are awaiting final diagnosis – no virus has been isolated to date.

Laboratory studies on the lyssavirus

The AAHL has determined that the five lyssavirus isolates from the two species of fruit bats are biologically and genetically the same lyssavirus and it is closely related to both classical rabies virus (serogroup 1, genotype 1) and European bat lyssavirus (EBL) 1 and 2 (serogroup 5, genotypes 5 & 6). However, current studies have shown that the lyssavirus varies from the serogroup 1 and serogroup 5 cluster by approximately 8% and is therefore considered a new genotype.

CDC have provided the following informal advice:

- the lyssavirus causes an ascending paralysis and encephalomyelitis when inoculated peripherally into laboratory mice
- human, veterinary and sub-unit vaccines protect against the lyssavirus and
- serum of rabies-vaccinated people neutralises the virus as does hyperimmune reference serum.

A retrospective study by AAHL has demonstrated lyssavirus in tissues of a bat autopsied in 1995 and sourced from New South Wales.

Conclusion

The isolations to date demonstrate lyssavirus in at least two species of fruit bats over a wide geographical area and over an extended time period.

Australia has had no case of indigenously acquired rabies infection in humans or any animal species during the past two years (or since 1867), in respect of classical rabies serogroup 1.

In respect of lyssaviruses, we consider that the bat lyssavirus isolated from fruit bats is equivalent to EBL 1 or 2 in respect to Australia's rabies status. Based on the OIE *International Animal Health Code* criteria for a rabies-free country (Article 3.1.5.2., paragraph 4), Australia should continue to be regarded as a rabies-free country.

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CLASSICAL SWINE FEVER IN HAITI

Translation of a fax received on 8 November 1996 from Dr J. Noréus Pierre, Deputy Director, Sanitary Protection Unit, Ministry of Agriculture, Natural Resources and Rural Development, Port-au-Prince:

S. R. - 1

Nature of diagnosis: clinical, post-mortem and laboratory.

Date of initial detection of animal health incident: early September 1996.

Number of separate outbreaks identified so far: six (6).

Geographical identification of the outbreaks:

- Port-au-Prince (capital)
- Croix-des-Bouquets and Pétion-Ville municipalities, Western district.

Details concerning the outbreaks:

No.	Species	No. of animals in the outbreak	No. of cases	No. of deaths	No. of animals destroyed	No. of animals slaughtered
1/96	sui	800	550	450	0	0
2/96	sui	1,200	150	136	0	0

Comments concerning affected population: the disease was detected in pigs feeding on municipal rubbish dumps. Diagnosis was confirmed in outbreak No. 1/96, a farm devoted to piglet production and fattening of pigs.

Comments concerning diagnosis: following the observation of abnormal mortality suggesting swine fever, post-mortem examinations were performed and these confirmed the diagnosis. Reagents available at the National Veterinary Laboratory excluded African swine fever. The diagnosis of classical swine fever was confirmed with the support of CIRAD-EMVT* in Guadeloupe (French West Indies).

Comments to date concerning epidemiology of the disease: investigations are under way to determine the extent of the disease within the country.

Control measures taken to date: quarantine; disinfection of the premises; vaccination is planned.

* International Cooperation Centre for Agronomic Research and Development - Department of Livestock and Veterinary Medicine.

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BOVINE SPONGIFORM ENCEPHALOPATHY IN PORTUGAL

Translation of a fax received on 8 November 1996 from Dr E. G. Andrade Pires, Director General of Veterinary Services, Ministry of Agriculture, Rural Development and Fisheries, Lisbon:

Number of cases identified since 1 January 1996: twenty-eight (28).

Geographical identification of the new outbreaks:

27/96. Vila Chá, Vila do Conde, Braga Sanitary Intervention Zone (SIZ), Entre Douro e Minho region
28/96. Ponte de Lima, Viana do Castelo SIZ, Entre Douro e Minho region.

Details concerning the new outbreaks:

No.	Date of detection of the outbreak	No. of animals in the outbreak	No. of cases	No. of deaths	No. of animals destroyed	No. of animals slaughtered
27/96	12 September 1996	77	one 7-year-old animal*	0	1	0
28/96	16 September 1996	3	one 6-year-old animal*	0	1	0

* Animal born in Portugal.

Comments concerning diagnosis: histopathological confirmation on 4 November 1996.

Control measures taken to date: the affected farms have been placed under quarantine and animal movement controls introduced; slaughter of the sick animals and destruction of their carcasses by burying. At a date to be arranged, the remaining animals in the affected farms will be slaughtered and their carcasses and offals destroyed by incineration.

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FOOT AND MOUTH DISEASE IN KUWAIT

Text of a fax received on 9 November 1996 from Dr Sultan A.S. Khalaf, Deputy Director General, The Public Authority for Agriculture Affairs and Fish Resources (PAAF), Safat:

S. R. - 1

Nature of diagnosis: clinical.

Date of initial detection of animal health incident: 24 October 1996.

Estimated date of first infection: 20 October 1996.

Number of separate outbreaks identified so far: two (2) farms.

Geographical identification of the outbreaks: Sulaibiya.

Details concerning the outbreaks:

No.	Species	No. of animals in the outbreak	No. of cases	No. of deaths	No. of animals destroyed	No. of animals slaughtered
1/96	bov	327	23	0	0	0
2/96	bov	575	113	0	0	0

Comments concerning affected population: cows in intensive dairy units.

- Outbreak No. 1/96: cows imported from Northern Europe on 30 July 1996 and vaccinated against foot and mouth disease (FMD) with a killed vaccine on 3 August, 18 September and 22 October 1996.
- Outbreak No. 2/96: cows imported from Northern Europe on 31 March 1996 and vaccinated against FMD on 2 April, 20 April and 23 June 1996.

Comments concerning diagnosis: virus isolation under way at the Virology Laboratory, Animal Health Department.

Comments to date concerning epidemiology of the disease: aerosol, direct contact and fomites.

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CRIMEAN-CONGO HAEMORRHAGIC FEVER IN SOUTH AFRICA

Text of a fax received on 14 November 1996 from Dr P.P. Bosman, Chief Director of Veterinary Services and Livestock Improvement, Pretoria:

S. R. - 1

On 5 November 1996, the Directorate of Veterinary Public Health was notified of a suspicious outbreak of Crimean-Congo haemorrhagic fever (CCHF) in 16 workers at one of the ostrich abattoirs in the Klein Karoo Cooperative (KKC) at Oudtshoorn. Slaughtering activities at both abattoirs of the KKC were immediately suspended pending the outcome of an intensive investigation into the matter by the Directorate of Veterinary Public Health, the Department of Health, the National Institute for Virology and officials of the KKC.

1. The CCHF-Unit of the Tygerberg Hospital, Cape Town has carried out an intensive epidemiological study since Monday, revealing that:

1.1. Sixteen primary contact patients were initially identified of which all (including their relatives, friends, etc.) were sero-surveyed and are still under intensive scrutiny and medical care.

- 1.2. One patient died acutely of the disease – the main reason being failure of her immune system to react to the infection and to sero-convert. All the other patients (except one) have already showed evidence of sero-conversion favouring a prognosis of complete recovery.
 - 1.3. Intensive questioning of all the patients and workers at the abattoir revealed that 8/16 worked in the defeathering area, 5/16 in the skinning section, 2/16 in the stunning area and 1/16 in the evisceration area.
 - 1.4. All these workers, in contrast to those in other areas of the abattoir, had mild to severe abrasions and injuries to their hands, palms and lower front limbs.
 - 1.5. All these workers were on the same slaughter line when the incident occurred. All indications are that this is a classical common source disease outbreak with almost absolute certainty that the source of infection was a single ostrich handled during the stunning, defeathering and skinning process by the same workers.
 - 1.6. Due to the high rainfall in certain areas supplying ostriches to the abattoirs at Oudtshoorn, an abnormal tick infestation was observed in ostriches delivered at the abattoir.
 - 1.7. There are more than 30 *Hyalomma* spp. known to be potential vectors of the disease.
 - 1.8. The disease in cattle and sheep can be regarded as endemic to South Africa (asymptomatic).
 - 1.9. The virus is relatively labile and does not survive in dried blood, high temperatures (cooking of meat) or in a low pH environment (<6) and in matured meat.
2. During a meeting on 6 November at Oudtshoorn where all the role players were present it was decided that:
- 2.1. The abattoirs of KKC at Oudtshoorn will remain closed for at least another 14 days until all the facts pertaining to the matter are clear and to give the producers supplying ostriches to the abattoirs sufficient time to institute the control measures.
 - 2.2. The treatment of ostriches with acaricides at least 14 days prior to slaughter will be required with certified proof of treatment. Only ostriches free of ticks will be allowed for slaughter.
 - 2.3. Workers at the abattoirs will be subjected to additional security measures to avoid contact with possible infected ticks.
 - 2.4. Trials will immediately commence to investigate the pathogenesis of the disease in ostriches and the infectivity of ostrich meat following exposure to possible infected ticks. Results of the trials should be available within 6 to 8 weeks.
 - 2.5. Meat from ostriches slaughtered after 22 October at the two abattoirs of KKC at Oudtshoorn will not be released for export before absolute certainty is obtained about the infectivity of this consignment of ostrich meat. However, studies done on beef and mutton in the endemic tick infested areas (*Hyalomma* species) confirmed that meat that has been matured for at least 24 hours is safe for human consumption. Maturation and chilling of meat is a standard procedure in all registered abattoirs in South Africa. There is good reason to believe that the scientific evidence gained from the studies of cattle and sheep will also be applicable to ostrich meat, which will mean that matured ostrich meat would be equally fit for human consumption. Further tests are being conducted.
 - 2.6. The unfortunate outbreak of CCHF in humans is restricted to only one of the abattoirs of KKC. None of the other ostrich abattoirs (including abattoirs approved to export ostrich meat), are effected by the outbreak. The status of these abattoirs for the export of ostrich meat should therefore not be endangered by the incident at Oudtshoorn. The control measures (acaricide treatment before slaughter and a compulsory withdrawal period of 14 days before slaughter) will, however, also be implemented at other ostrich abattoirs.

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