

### BABESIA EQUI INFECTION IN SABAH PONY

SIR: Babesiosis is a tick-borne protozoan disease and *Babesia equi* is one of the two species that occur in horses. The other is *B. caballi*. *B. equi*, however, has not been reported in Malaysia. Thus, we would like to report the first infection by *B. equi* in Sabah pony.

Five Sabah ponies from a herd of 105 horses were involved. Complete haematological assay was carried out on all blood samples. Blood smears were stained with Giemsa at pH 7.2. Autopsy was carried out on two animals. Impression smears of the brain, spleen and the lymph nodes were prepared and fixed.

The clinical signs observed included lethargy, pyrexia and jaundice. Some animals showed inappetance, listlessness, loss in body weight while one was on lateral recumbency. The signs were observed for a period of between 2 to 28 days. Examination of blood smears revealed the presence of *B. equi* in the erythrocytes. The average PCV was 26% while the RBC was  $4.0 \times 10^6 / \mu\text{L}$ . Intravenous injection of Naganol lead to full recovery of three animals.

At necropsy, there were generalised jaundice and anaemia. The spleen was enlarged, swollen and soft. The liver and lymph nodes were enlarged. There were petechiations in the kidneys and haemorrhages in the subepicardial and sub-endocardial.

*B. equi* has been known to be more pathogenic than *B. caballi*, which has been reported earlier in Malaysia (Chandrawathani *et al.*, 1998). The infection by *B. caballi*, however, did not produce any clinical signs (Chandrawathani *et al.*, 1998) while infection by *B. equi* observed in this study produced marked clinical signs. The incubation period for *B. equi* is 8-10 days. The first clinical sign is marked increase in body temperature that often subsides after one day. If recovered, the animal rapidly becomes a carrier (Zweygarth *et al.*, 1997). In peracute cases, death occurs in 1-2 days after the onset of clinical signs. Imidocarb is strongly recommended for prophylaxis and treatment but Suramin can also be used.

A.K.R. Fadzilah<sup>1</sup>, O. Abas Mazni<sup>2</sup> and H. Zaidah<sup>1</sup>

<sup>1</sup>Equine Unit, Department of Veterinary Services, Kluang, Johore, Malaysia

<sup>2</sup>Biotechnology Center, MARDI, Serdang, Malaysia

### REFERENCES

- Chandrawathani, P., Yusof, M., Slamah, B. and Rohaya, M.A. (1998). A survey on equine piroplasmiasis in selected areas in Peninsular Malaysia. *J. Vet. Malaysia* 10: 25-26
- Zweygarth, E., Just, M.C. and DeWaal, D.T. (1997). *In vitro* cultivation of *Babesia equi*: detection of carrier animals and isolation of parasites. *Onderstepoort J. Vet. Res.* 64: 51-56

### A CASE OF BRACHYGNATHIA INFERIOR IN GUINEA PIG

SIR: Brachygnathia inferior is a rare congenital disease, which has been reported to occur in foals, calves, lambs and puppies. The affected animals show a congenital reduction in the length of the lower jaw due to the inherited simple autosomal recessive trait (Baker and Van Dreumel, 1985). Although the disease has been reported in many domestic animals, there was no report in guinea pigs. Thus, we wish to report a case of brachygnathia inferior in a guinea pig (*Cavia porcellus*).

An adult albino guinea pig with good bodily condition was submitted for post-mortem examination. It was in late pregnancy, kept in individual cage and fed with commercially prepared diet. Drinking water was available *ad libitum*. Post-mortem examination revealed a pale and friable liver, with four full-term foetuses in the uterus. All foetuses were normal except one, which had a markedly shortened mandible, approximately 0.5mm shorter than the maxilla.

This inherited anomaly is also known as micrognathia, which is a common defect in calves and horses. The condition is a lethal defect in cattle and sheep, but is a breed characteristic of long-nosed dogs (Baker and Van Dreumel, 1985). This usually leads to caudal displacement of mandible canine tooth in relation to the maxillary canine tooth (Van Kruiningen, 1995). The problem is more serious in herbivores and rodents, which require considerable grinding of the food materials. The resultant uneven tooth-wear leads to abnormal dental attrition and eventually serious problems of mastication (Van Kruiningen, 1995).

The guinea pig sow in this case was believed to have died of liver failure and ketosis associated with pregnancy toxemia. This concomitantly affected the survival of the foetuses *in utero*. However, should a normal birth proceeded there will be difficulties in suckling leading to agammaglobulinaemia and chronic starvation.

S. Jasni, I. Dahlan and M.M. Noordin

Faculty of Veterinary Medicine  
Universiti Putra Malaysia  
43400 Serdang, Selangor, Malaysia

### REFERENCES

- Baker, I. K. and Van Dreumel, A.A. (1985). *In: Pathology of Domestic Animals*. Jubb, K.V.F., Kennedy, P.C. and Palmer, N. (Eds). Academic Press, London. p4.
- Van Kruiningen, H.J. (1995). Gastrointestinal system. *In: Thomson's Special Veterinary Pathology*, W.W. Carlton and M.D. McGavin (Eds). Mosby-Year Book Inc., St. Louis. p14.