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ATRESIA ILEI IN A NEWBORN DROMEDARY CAMEL

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Intestinal atresia has been reported in all food animal species and is the most common defect of the gastrointestinal tract (Saperstein, 1993). The causes of atresia in domestic animals are not completely understood but can be due to mechanical lesions in the blood vessels in a portion of the gut, such as malpositioning that compromises circulation and results in vascular accidents and ischemia (McGavin *et al*, 2001). Atresia of the small intestine is less common than in large intestine. Atresia ilei is most prevalent in calves, but rare in foals, lambs, piglets and pups (Jubb *et al*, 1993). Atresia ilei in camels has not been found in the available literature.

A case of atresia ilei in a newborn male dromedary was presented in an intensive camel farm located in Fuerteventura Island, Canaries, Spain. Forty eight hours after birth, the animal showed weakness, reluctance to stand, dehydration, progressive abdominal distension as well as abdominal diffuse pain. At that moment, only small amounts of brown mucoid material, but no meconium or faeces had been seen evacuated rectally. The 4 years old dam was primiparus and did not receive any treatment during her pregnancy. Serological determination of Q fever, brucellosis, blue tongue and foot and mouth disease resulted negative. Supportive treatment (oral and intravenous fluid-therapy) were administered to the animal but the camel calf died few hours later.

Postmortem examination revealed a blind end in the distal portion of the ileum, which was enlarged containing gas and fluid. The small intestine was distended.

Although the aetiology of atresia ilei is unknown, interruption of the foetal circulation has been shown experimentally to cause atresia of the small or large intestine in lambs, dogs, rabbits and chickens (Van der Gaag and Tibboe, 1980).

Intestinal obstructions prevent the normal movement of gut content and meconium in the foetus and neonate. Therefore, they lead to dilation of the anterior segment, with progressive abdominal distention (Jubb *et al*, 1993).

Rectal palpation of the amniotic vesicle has been reported to cause intestinal atresia in cows (Leipold *et al*, 1990). However, rectal examination in the dam of present report was not performed in any stage of the pregnancy.

Atresia ilei in Swedish Highland cattle has also been proposed to be inherited, as lethal autosomal recessive traits, although the data are weak (Jubb *et al*, 1993). The import of live animals from North African countries to the Canary Islands is banned since many years ago due to the presence of important infectious diseases in that area. Thus, a certain inbreeding environmental conditions could promote autosomal diseases such as suggested in Swedish Highland cattle. However, further studies are necessary to determine the possible aetiology of this congenital abnormality.

References

Jubb FVF, Kennedy PC and Palmer N (1993). Pathology of Domestic Animals. 4th Edn. Academic Press, San Diego. pp 74-140.

Leipold HW, Woollen NE and Saperstein G (1990). Congenital defects in ruminants. In: Large Animal Internal Medicine. Ed. Smith BP, Mosby, St. Louis. pp 1545.

McGavin MD, Carlton WW and Zachary JF (2001). Thomson's Special Veterinary Pathology. 3rd Ed. Mosby, St. Louis, pp 1-80.

Saperstein G (1993). Congenital abnormalities of intestinal organs and body cavities. Veterinary Clinics of North America: Food Animal Practice 9(1):115-125.

Van der Gaag I and Tibboe D (1980). Intestinal atresia and stenosis in animals: a report of 34 cases. Veterinary Pathology 17:565-574.

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