

MESODIVERTICULAR BAND AS CAUSE OF COLIC IN A CAMEL (*Camelus dromedarius*)

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An 11 year old female racing camel was sent to the CVRL, Dubai for necropsy. The camel won many races as 4 and 5 year old. However, as a 6 year old it did not race well and was used for breeding. In the first breeding year it did not conceive due to the presence of a cystic ovary. Following treatment, the camel was twice pregnant and delivered a female and a male calf, before it died.

Over the last 3 years she was noted to develop occasional colic symptoms during the summer months. During colic episodes the PCV was always between 23 to 25%. Two weeks ante mortem it again developed colic with inappetance and koprostasis with no response to the administration of laxatives. However, after treatment with Pilocarpine (2.5 ml of 2% Pilocarpine, subcutaneously) she passed very hard, blood coated faeces. After eating some grass and drinking water she died within 48 hours.

Post mortem investigation revealed severe lung oedema and congestion in combination with overload of compartment one. The small intestine contained excessive fluid and showed haemorrhagic infarction of a 1 m long segment of the distal jejunum. This was caused by strangulation due to a 15 cm long band of connective tissue anti-mesenterically attached to the ileum (Fig 1). Histology of the small intestine showed massive coccidiosis. *Cl. perfringens* was isolated in high numbers from the small intestine.

To the authors' knowledge this is the first description of the occurrence of a mesodiverticular band, which has caused the strangulation and a volvulus of the small intestine in a dromedary.

The mesodiverticular band most probably was the cause of the recurrent colic symptoms over the last 3 years. The low PCV (23-25%), which occurred during colic episodes (normal values 24-31%; Wernery *et al*, 1999), was most probably caused by repeated bleedings into the intestinal lumen during strangulation phases. The final strangulation led to an intestinal incarceration and haemorrhagic infarction.

In cases of repeated colic without obvious reason surgery might be indicated to screen for the mesodiverticular band. However, nothing is known about the incidence of this band in camels, it might be even more rare than in horses.

Meckel's diverticulum is the most frequent malformation of the human gastrointestinal tract and is present in 1.5% of the human population. They are found twice as frequently in men as in women and complications occur 3 to 5 times



Fig 1. Strangulation and haemorrhagic infarction of a 1 m long segment of the distal jejunum caused by a 15 cm long band of connective tissue antimesenterically attached to the ileum.

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more frequently in males (Vanderbilt University, 1998).

Meckel's diverticuli in humans are located in the distal ileum, usually within 1 m of the ileocaecal valve. They always run antimesenterically and have their own blood supply. Intestinal obstruction is the mode of presentation in 25% to 40% of clinical cases and is attributed to intussusception, volvulus, torsion, or herniation of an intestinal loop. Diverticulitis is clinically indistinguishable from acute appendicitis in humans (Vanderbilt University, 1998).

In the horse, the Meckel's diverticulum is a fist-sized spherical pouch on the antimesenteric border of the intestine. The blind end may have a fibrous string attached to the umbilicus and can cause intestinal strangulation (Grant and Tennant, 1973; Hooper, 1989). Alternatively a meso-diverticular band can persist and causes strangulation and volvulus (Freeman *et al*, 1979). Meckel's diverticuli occur in about 1 out of 3000 horses and the presence of mesodiverticular band is even more rare (Rooney and Robertson, 1996).

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