

CAESAREAN IN FIVE CAMELS : CASE REPORTS

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Dystocia is uncommon in camel. There are few reports of caesarean operation in this species (Elias, 1991; Purohit *et al*, 1985 and Sharma *et al*, 1982). Indications of caesarean operation includes foeto-maternal disproportion, incomplete dilatation of cervix, irreducible uterine torsion, foetal monsters, foetal disposition and foetal emphysema (Arthur, 2001).

Caesarean operation through paralumbar celiotomy under sedation in 5 camels has been described in the present report.

Case history

Five she camels were brought to the Teaching Veterinary Clinical Complex with the history of sweating, uneasiness, and colic like signs and dystocia. Vaginal and rectal examination were done to assess foetal or maternal causes of dystocia.

In she camels no. 1 and 2, vaginal examination revealed constricted vagina with spiraling vaginal folds to the right side. The broad ligaments were tense in the clockwise direction with 180° post-cervical uterine torsion. Considering complications of rolling, the caesarean operation was planned.

In she camel no. 3, the foetus had bilateral hip flexion, and tail was palpated in the birth canal. No foetal reflexes were felt. The vaginal passage was oedematous and hence it was not possible to deliver foetus even through foetotomy.

In she camel no. 4, both fore-limbs were flexed with complete right lateral deviation of head. Manual correction of head was not possible due to swelling of the birth canal. The hind limbs of foetus were found ankylosed.

In camel no. 5, fore-limbs of foetus were flexed with incomplete dilatation of cervix. Foetal reflexes were absent.

Caesarean operation was the choice in all the camels.

Treatment

All the female camels were stabilised by administering adequate normal saline solution (0.9%) i.v.; antihistaminics, analgesics, dexamethasone and dihydrostreptopenicillin 5 gm, i.m. Thereafter, each camel was sedated with Xylazine hydrochloride (0.3 mg/kg BW i.v.). Following 15 minutes of sedation camels were restrained in right lateral recumbency. The left lower paralumbar fossa region was prepared for aseptic surgery. The proposed site of incision was infiltrated with 80 ml of 2% lignocaine hydrochloride. A 20 cm longitudinal incision was made across the skin, subcutaneous tissue, muscles and peritoneum to enter the abdominal cavity. The greater omentum was retracted cranially. Saline-soaked draps were placed into the abdomen to prevent spillage of foetal fluid into the abdomen. Foetuses were too large to exteriorise the uterus, therefore, an incision was given into the greater curvature of gravid horn to remove the foetus. The gentle traction was applied to withdraw the foetus. The uterus was inspected for tears after removal of foetus. Placenta was found wrapped around the foetus in 2 cases, while it was manually removed easily in others. The uterus was thoroughly lavaged with sterile saline solution to clean all blood clots and debris from the uterus. Eight boluses containing metronidazole and furazolidone put were inside the uterus before closure of uterine incision. The uterine incision was closed with a lambert followed by cushioning suture pattern in second row using chromic catgut No. 3. The incision line was sprinkled with povidone iodine powder and uterus was rolled in counter-clockwise direction to detort torsion in affected camels. The abdominal cavity was cleansed with sterile normal saline solution containing 5 gm dihydrostreptopenicillin. The peritoneum along with musculature was sutured with lockstitch suture pattern using chromic catgut No. 3. Then second muscular layer was also sutured with same suture

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material in similar suture pattern. The skin incision was closed with the horizontal mattress suture pattern using silk thread no. 3. The suture line was sprayed with betadine. The dihydrostreptopenicillin 5gm i.m., metronidazole solution (5%), 600ml, i.v. and analgesics were administered for 6 consecutive days. Antiseptic dressing with povidone iodine solution was done daily. The camel 1 was reported on day 5 with little accumulation of pus in the suture line, that was drained out and antibiotic treatment was extended for another 5 days. The skin sutures were removed after 15 days. Camels recovered uneventfully.

Discussion

Although, caesarean operation in dystocia cases are reported less frequently in camels. The main indications of caesarean operation include uterine torsion, foetal malpositions and incomplete dilatation of cervix (Cebra *et al*, 1997). Caesarean operation is required for monstrosities and foeto-maternal pelvic disproportion (Elias, 1991).

Authors used Xylazine hydrochloride as a sedative agent along with local anaesthesia and found it effective for caesarean operation which is in accordance to the previous reports (Anderson, 2009 and Elias, 1991).

Two main approaches have been suggested for caesarean operation in camel, i.e. left paralumbar celiotomy and ventral midline (Anderson, 2009). In the present report left paralumbar celiotomy approach for caesarean operation was opted. In this approach the dam is sedated and restrained in right sternal

recumbency but not anaesthetised (Sarno *et al*, 1996). This site has advantages of least wound dehiscence and contamination from outside during sitting and standing (Campbell and Fubini, 1990). In ventral midline approach, there is risk of post-operative incisional hernia (Anderson, 2009). The authors got excellent results following caesarean operation through left paralumbar approach.

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