

Flank colostomy for the correction of agenesis of terminal colon in a calf

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ABSTRACT

Romson's colostomy kit used routinely in human beings was successfully employed to treat a case of agenesis of terminal colon in a crossbred female calf after performing flank colostomy.

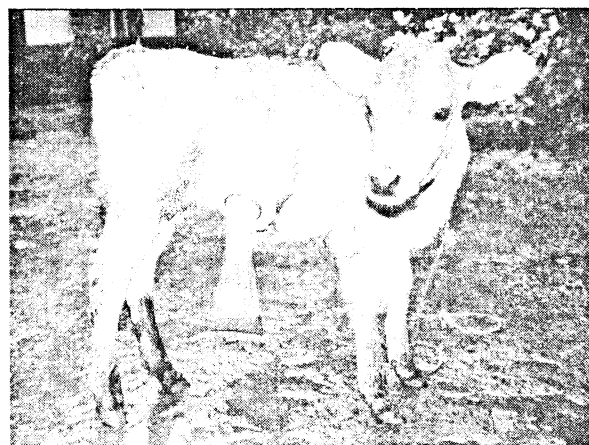
The calf was not passing dung since birth though anus and rectum were present. Anus and perineum were severely lacerated and oedematous. There was bilateral abdominal distension and respiratory distress. Exploratory laparotomy was performed through a right flank incision under xylazine-ketamine anaesthesia and on examination, terminal colon was found to be absent. The blind end of the colon was resected from adhesions and sutured to the lower commissure of laparotomy wound. A Romson's colostomy fistula was fixed into the lumen of the colon and secured to the body of the animal with elastic straps.

A disposable plastic collection bag with an opening on its lower aspect was attached to the fistula that facilitated easy evacuation of bowel contents. Postoperatively intravenous fluids, antibiotics and analgesics were administered along with regular dressing of the laparotomy wound. The calf had an uneventful recovery.

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Agenesis of anus and rectum are occasionally met within calves and kids (Tyagi and Singh, 1996; Balagopalan, 1996). Agenesis of terminal colon has also been reported in calves (Kernkump and Legates, 1961). A case of agenesis of terminal colon and its surgical management using Romson's colostomy kit¹ is presented in this paper.

A 35 days old crossbred female calf was presented to Veterinary Dispensary, Chengalayi on 8.7.2000 with



the history that the calf has not passed dung since birth. Clinical examination revealed that anus was present and it was possible to pass a metal probe into the rectum for a length of about 5 cm. Anal opening showed laceration and oedema probably due to exploration by unskilled persons. There was bilateral abdominal distension and severe respiratory distress. Visible mucous membranes were pale and rectal temperature was 100.2°F. Heart and pulse rates were 82 and 78 per minute respectively.



Exploratory laparotomy was performed. The entire right flank region was prepared for aseptic surgery (Fig.1). The animal was premedicated with Xylazine hydrochloride² at the dose rate of 0.2-mg/kg-body weight intramuscularly. General anaesthesia was effected with Ketamine hydrochloride³ at the dose rate of 3-mg/kg-body weight intravenously. Laparotomy was performed at the right flank by a vertical incision for a length of 14 cm. Gas filled bowel loops started protruding as soon as peritoneum was incised. To facilitate easy handling of viscera, enterotomy was performed to evacuate gas and fluid and then the incision was closed by double row of inversion sutures in Cushing pattern using 1/0 chromic catgut. On examination, terminal portion of colon was found to have not developed and it was connected to rectum by a cord. Due to severe tissue damage around anus also due to difficulty to stretch the colon, it was decided to fix the blind end of colon to the Laparotomy incision to divert the faecal materials. The blind end of the colon was carefully resected and sutured to the skin at the lower commissure of laparotomy wound in a circular manner by simple interrupted pattern using silk. The bulging circular piece of colon wall was incised and removed. A Romson's colostomy fistula was fixed to the opening so that faecal materials get collected in the plastic bag attached to the fistula (Figures 2 and 3). Laparotomy wound was closed. Ringer lactate solution⁴ was administered during surgery.

A combination of ampicillin sodium (500 mg) and cloxacillin sodium (500 mg)⁵ was administered intravenously every 12 hours for 5 days. Diclofenac sodium⁶ (75 mg) was administered intramuscular for two days postoperatively. The wound was dressed with Povidone iodine ointment and skin sutures were removed on the 9th postoperative day. The calf had an uneventful recovery.

The calf is healthy and well accustomed to routine usage of colostomy kit. The owner was asked to make an opening at the lower aspect of plastic bag so as to facilitate passage of accumulated dung materials and

collection bag is changed once in a week. The calf is still under observation. In man, permanent colostomy is employed after excision of rectum wherein the distal end of the divided colon is fixed in the left iliac fossa. Complications of colostomy in human being include prolapse, retraction, necrosis of the distal end, stenosis of the orifice, colostomy hernia, bleeding and colostomy diarrhoea (Mann and Russell, 1992). In the present case, the owner was interested to prolong the life of the calf because; the cow was a high yielder (around 12 lit of milk per day) and was not allowing milking without the calf. There was no major complication following surgery.

References

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Will GDP growth hit 6.5% mark?

The economy registered a GDP growth of 6 per cent for the current financial year. In order to achieve the target, the economy would have to post a growth of 7.1 per cent in the remaining two quarters in order to meet targets. However, the agriculture sector failed to show any promise.

- The Economic Times