

## VENTRAL HERNIOPLASTY IN A LION (*PANTHERA LEO*) - A CLINICAL REPORT

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### web supplement

A 10-year old wild male lion weighing about 120kg was captured from Gir National Park with signs of ventral abdominal swelling. Clinical and radiological examination confirmed the diagnosis of bigger-than-coconut-size ventral hernia with two linear foreign bodies in the peritoneal cavity (Image 1<sup>w</sup>).

Under xylazine-ketamine anaesthesia after premedication with atropine, the site was prepared for aseptic surgery. A linear midline skin incision was made. The peritoneal cavity was entered after separating considerable adhesions. The abdominal wall along the circumference of the hernial ring was thickened with weak spots at three or four places. The omentum adhered at places were also separated and the linear foreign body was removed (Image 1<sup>w</sup>). After making the thickened hernial ring free of adhesions, a prolene mesh (12"x17") was applied using inlay technique. Prolene (no. 1) was used as suture material for providing reinforcement. Subcutaneous sutures were made with chromic catgut (no. 2) and skin with nylon thread using horizontal mattress pattern. Post-operatively, the animal was administered a course of parenteral antibiotic Enrofloxacin @ 2.5mg/kg, S/C (Bayrocin 10%; Bayer Animal Health, Indo Biocare Pvt. Ltd., Vadodara) and anti-inflammatory Meloxicam @ 10ml, S/C (Melonex - 20mg/ml; Intas Pharmaceuticals Ltd., Ahmedabad). After 24 hours, though it was lightly sedated overnight, the animal banged its abdomen on the water trough and was roaring at the slightest disturbance. On the third day, a piece of omentum was seen protruding from the suture line. Hence, on the fourth post-operative day, under routine anaesthetic procedure using xylazine-ketamine combination, the animal was sedated again and the abdomen was opened at the earlier incision point. The suture line holding the prolene mesh had given way between 8 and 11 O'clock position causing protrusion of omentum. Surprisingly, the hernial ring was found contracted in size and shape. The teflon mesh was reinforced with sterile braided thick nylon using interrupted sutures. The abdominal incision was closed as per routine procedure. Post-operatively, Cefotaxime 1g b.i.d. (Taxim - Alkem Laboratories Ltd., Mumbai) was given for seven days. Additionally, daily ration was reduced to half and 50% Celemin infusion was given to make up any deficiency due to reduction in ration. The animal made an uneventful recovery within 12 days and the sutures were removed. The animal was also shifted to a bigger enclosure and after a month it gained 12kg.

The two linear foreign bodies (probably of prey origin) were almost inert without evoking any septic febrile reaction. Probably these thin linear foreign bodies may be responsible for creating so many weak spots in the abdominal musculature over a period which resulted in muscle separations and subsequent ventral herniation. Review of all available literature revealed no such report of ventral hernioplasty in a lion. However, there are reports of diaphragmatic hernia in a leopard cat (Rao & Acharjyo, 1994) and Indian Tiger (Joshi, 1985) on postmortem.

### REFERENCE

Joshi, B.P. (1985). Cited from Text Book on Wild Animal Medicine, (1991) Ed., Oxford Publishing Co., New Delhi, 234pp.

Rao, A.T. and L.N. Acharjyo (1994). Etiopathology mortality in Indian lesser cats at Nandankanan Zoo. *Indian Journal of Veterinary Pathology* 19(1): 48-50.

<sup>w</sup> see image 1 in the web supplement at [www.zoosprint.org](http://www.zoosprint.org)



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