

SURGICAL MANAGEMENT OF VAGINAL FIBROSARCOMA TUMOUR IN A CROSS BRED COW

SHARAD KUMAR, R. B. KUSHWAHA* and J. S. SOODAN

Division of Teaching Veterinary Clinical Complex, Faculty of Veterinary Sciences and Animal Husbandry,
 Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu, R. S.Pura-Jammu-181102 (J&K), India

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SUMMARY

An adult cow was brought to the clinics with the history of protrusion of circular mass from the floor of vagina and dysuria. On physical examination of mass and its consistency, a vaginal tumour was diagnosed. The protruding mass was resected under sacro-coccygeal epidural analgesia using 7.0 ml of 2% lignocaine solution. The vulvar lips were looking normal immediately after surgical repair but complete healing of incision line occurred in couple of weeks.

Key words: Cow, Epidural analgesia, Fibrosarcoma, Vaginal tumour

Vaginal tumours are uncommon in the cow but fibromas, fibrosarcomas, leiomyomas, hemangiomas, lymphosarcomas and carcinomas are reported vaginal tumours in the cow (Roberts, 1999; Yeruham *et al.*, 1999). Vaginal tumours rarely cause infertility but may cause dystocia if they are very large in size. Most of the vaginal tumours are benign and pedunculated. In some cases they may protrude through vulva and required surgical removal (Musal *et al.*, 2007; Hamali and Ashrafihelan, 2010). The present paper describes a case of large hard circumscribed tumour protruding from the vagina and its surgical removal under epidural analgesia in a cross bred cow.

A six years old pluriparous cross bred cow was brought to the clinics with the history of protrusion of circumscribed hard mass from the vagina (Fig. 1). The cow exhibited dyschezia and dysuria and had been inseminated 2 months ago. After that, small but progressively growing mass was intermittently protruding and repositioned spontaneously. Distant examination was simulating cervico-vaginal prolapse but upon close and vaginal examination, the growth was revealed a solid circular shaped of football sized mass protruding from the ventral commissure of vulva which was attached with left ventro

lateral aspect of cervical os. The case was tentatively diagnosed as vaginal tumour.

Epidural analgesia was induced by injecting 7 ml of 2% lignocaine hydrochloride at the sacro-coccygeal junction. Once the effect of epidural anaesthesia had come, the vaginal mass and canal was washed with antiseptic solution. A transverse linear incision was given at the mucosal surface of tumour and growth was removed by blunt separation off mucosal lining (Fig. 2). The growth was very large in size and hanging from vulva that resulted into stretching of pedunculated attachment. Earlier authors have also reported removal of vaginal tumour in epidural analgesia with or without linear infiltration at the site of incision (Yeruham *et al.*, 1999; Musal *et al.*, 2007; Hamali and Ashrafihelan, 2010). This could be the reason why authors preferred a vertical linear incision and then separated off tumour from mucosa by blunt dissection. During the excision procedure, an assistant grasped the pedunculated portion to prevent retracting back of mucosa deep into vagina immediately after removal. The extra portion of vaginal mucosa was resected and repaired in double layer with inversion pattern by catgut no. 1 (Fig. 3). Repair of vaginal mucosa differs from case to case and as



Fig. 1: A circumscribed mass hanging from the vagina and vulva; Fig. 2: After repair of vaginal mucosa in inversion pattern with chromic cat gut # 1; Fig. 3: After releasing of repaired vaginal mucosa; Fig. 4: Gross morphology of cut surfaces of resected vaginal tumour.

*Corresponding author : kushwaharb@rediffmail.com

per tumour type. However, Musal *et al.* (2007) repaired incision first by interrupted cross mattress and then simple continuous pattern using cat gut no. 2. The resected mass was sectioned into two equal halves for gross morphology. The resected mass appeared white dense fibrous homogenous structure. Although in this case histopathology was not done but from the sectioned macroscopic appearance (Fig. 4); it could have been a case of fibrosarcomatous tumour (Yeruham *et al.*, 1999; Musal *et al.*, 2007).

Post operatively, Inj. Enrofloxacin (Quinintas®, Intas Pharmaceutical Ltd.) and Meloxicam (Melonex®, Intas pharmaceutical Ltd.) each 15 ml were injected intramuscularly for 5 days. Owner was advised to wash the vaginal canal with KMnO₄ solution. Initially there were discharge from the vagina but gradually it became normal in two weeks. From the present case study, it was

concluded that vaginal tumour could cause problem in insemination and such type of tumours may be removed surgically under epidural analgesia. Though gross morphology of tumour may help in diagnosis but histopathology must be done to classify the type of tumour exactly.

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