

SURGICAL CORRECTION OF VAGINAL FIBROMA IN A SPITZ SHE DOGB. BALAMURUGAN* and L. SIVASUDHARSAN¹

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SUMMARY

A 10 year-old Spitz she dog weighing around 8 kg was presented to the Department of Veterinary Clinical Complex, College of Veterinary Science, Proddatur, with the history of hard mass protruding from vaginal canal since one month. General clinical examination revealed normal urination and defecation, normal physiological and haemato-biochemical values. Per-vaginal examination revealed attachment of mass deep in the dorsal vaginal canal. The mass was surgically excised and the animal was administered with Antibiotic (Inj. Taxim @ 20mg/kg b.wt) intravenously and analgesics (inj. Meloxicam @ 0.3 mg/kg b.wt) intramuscularly, for three days. The animal had uneventful recovery within seven postoperative days. The tumorous mass weighed 300 gm and on histopathological examination was found to be vaginal fibroma.

Keywords: Histopathology, She dog, Surgical correction, Vaginal fibroma

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In bitches, most of the tumors originate from the lower reproductive tract than that of upper reproductive tract. Tumors of vaginal and vulva are the second most common reproductive tumors next to mammary tumors in canine population (Saahithya *et al.*, 2018). Tumors of tubular genital tract of female account for 2.4 to 3% of all canine tumors of which 85-90 % occur in vulva, vagina and vestibule (Vijayanand *et al.*, 2009). Leiomyoma, fibroma or fibroleiomyoma and transmissible venereal tumors are most commonly reported benign neoplasms of the canine reproductive tract. These tumors can be managed through local complete resection via episiotomy combined with ovario-hysterectomy (OHE) in order to prevent the recurrence (Kumar *et al.*, 2014). Present case was managed successfully via surgical resection of the tumor mass. Animal was re-examined after four months and revealed absence of reoccurrence.

A 10 year-old Spitz she dog weighing around 8 kg was presented to the Department of Veterinary Clinical Complex, College of Veterinary Science, Proddatur with the history of protruded hard mass from vaginal canal since one month. General clinical examination revealed that animal was active and alert. All the vital parameters were within the physiological range. External observation revealed a large single, hard mass protruding through the vaginal cavity (Fig. 1.). It was solitary, well circumscribed and pedunculated from the floor of the vagina. Per-vaginal examination revealed attachment of mass deep in the dorsal vaginal canal. Radiographic examination revealed that there was no evidence of metastasis (Fig. 2).

The she dog was aseptically prepared for surgery, pre-medicated with Inj. Atropine @ 0.5 mg/kg b.wt. and sedated with Inj. Xylazine @ 1.0 mg/kg b.wt. and induced with Inj. Ketamine (@5mg/kg b.wt.), respectively and maintained with Inj. Ketamine (@5mg/kg b.wt.) and Inj. Diazepam (@0.2 mg/kg b.wt.). Lignocaine was infiltrated around the base of mass. Blood vessels supplying the mass were ligated with 2-0 catgut. The mass was surgically excised and the vaginal mucosa was sutured with inversion suture pattern using catgut size '0'. The vaginal canal was doused with diluted antiseptic solution. The animal was administered with antibiotic (Inj. Taxim @ 20mg/kg b.wt.) intravenously and NSAID analgesics (inj. Meloxicam @ 0.3mg/kg b.wt.) intramuscularly, for three days. The animal had uneventful recovery within seven postoperative days.

Macroscopic examination of the mass revealed that the vaginal mass was roughly around 5cm in diameter weighing 300 grams. The cut section of the surface was white and tough in appearance (Fig. 3). On histopathological examination, the mass revealed bundles of spindle shaped fibrous connective cells (fibroblasts) with rounded nuclei. (Fig. 4 & 5).

In female dog, etiology for reproductive tumors is unknown. Mesenchymal origin of the canine vaginal tumors is rare mainly of fibroma and fibrosarcomas (Neelu and Tiwari, 2009). Vaginal tumors usually occur in older age between 10-12 years old female dogs. Tumors of lower reproductive tract may cause obstruction to urethra and rectum extra lumenally or intra-lumenally (Gupta *et al.*, 2014). Further these tumors may not affect the fertility

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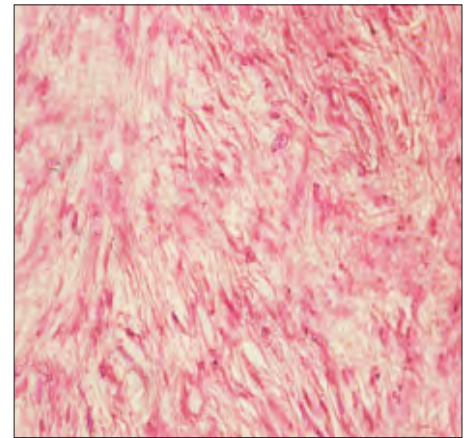
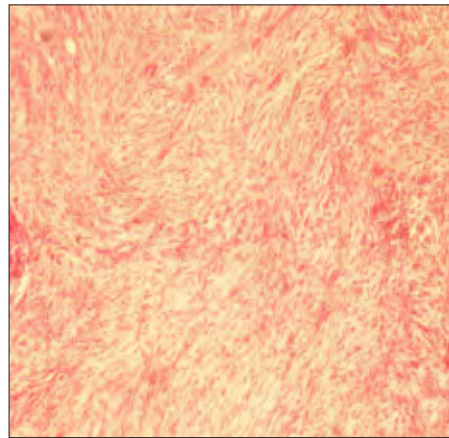
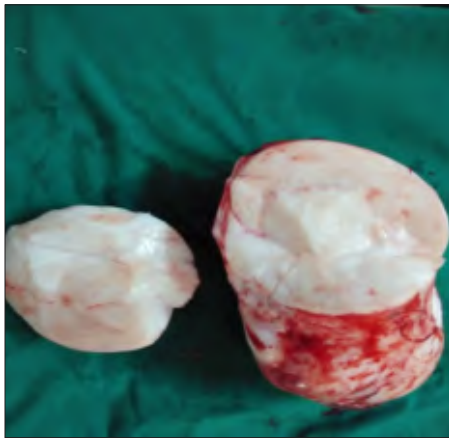


Fig. 1 to 5. (1) Hard mass protruded through the vagina; (2) Radiograph revealed absence of metastasis ; (3) Cut section of the tumor mass ; (4 & 5) Bundles of spindle shaped fibrous connective cells (fibroblasts) with rounded nuclei.

but may interfere with natural breeding, whelping and associated with dystocia (Al-Kenanny *et al.*, 2013). Vaginal fibroma can be treated with aglepristone (RU534) (Rollon *et al.*, 2008) and surgical approach include episiotomy (Ali *et al.*, 2019), complete surgical excision of the mass (Kumar *et al.*, 2014) or more aggressive procedures such as vaginectomy, urethroplasty, and ventral pelvic osteotomy (Salomon *et al.*, 2004). Finally, ovariohysterectomy is advised in order to prevent the reoccurrence (Verma *et al.*, 2019). Differential diagnosis of vaginal fibroma includes vaginal polyps, lipoma, leiomyoma, leiomyosarcoma, transmissible venereal tumor, lipoma and adenocarcinoma.

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