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## 43. VAGINAL LEIOMYOSARCOMA IN A DAIRY COW DURING PREGNANCY

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### **Introduction**

Reported neoplasms of the ruminant female reproductive tract are rare. An estimated 10–50% of such tumours are of smooth muscle origin, of which approximately 10% are considered malignant. Leiomyosarcomas in these species are reported to display a growth pattern of low-grade malignancy, with slow invasion and rare metastasis. To our knowledge, there is no report about occurrence of vaginal leiomyosarcoma in the cow and in this report, we describe gross and histopathological features of the tumour.

### **Materials and methods**

During rectal examination of a 5-year-old pregnant cow, a single multinodular vaginal mass was encountered and removed surgically after parturition. Tissue samples of the mass were fixed in 10% neutral buffered formalin, paraffin-embedded, sectioned at 5–6 µm, and stained with hematoxylin and eosin.

### **Results**

Grossly, the mass had two convex and flat surfaces. Multiple firm nodular masses and ulcers were observed in the convex and flat surfaces, respectively. On cut section, the tumour was solid, non-encapsulated and gray-white with small yellowish foci. Histological examination of the mass revealed round to spindle cells with cellular and nuclear pleomorphism. The tumour cells had indistinguishable cytoplasmic borders and prominent nucleoli. Necrotic debris and infiltration of inflammatory cells around bacterial colonies were present. There was diffuse fibrous connective tissue arranged in interwoven fascicles.

### **Conclusion**

According to macroscopic and microscopic features, the mass was diagnosed as vaginal leiomyosarcoma.