

## Diagnosis and Management of Vaginal Angiofibroma in a Pregnant Murrah Buffalo

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### Abstract

A pregnant buffalo was presented with history of continuous straining, cervico vaginal prolapse four days before, blood tinged vaginal discharge, inappetence, uneasiness and partial protrusion of vaginal growth through vulval passage during straining. On clinical examination all physiological parameters were normal. Per-vaginal examination revealed presence of cauliflower like growth at vaginal floor with a pedunculated stalk. The growth was excised surgically under epidural and local infiltration anesthesia. Post-operatively, animal was treated with hemostatic, broad spectrum antibiotic and anti-inflammatory drugs. Based on gross examination and histopathology findings, the growth was diagnosed as angiofibroma.

**Keywords:** Angiofibroma; buffalo; pregnancy; vagina

### Introduction

Amongst domestic animals, vaginal tumors are occasional in buffaloes and mostly originated due to multifactorial which includes irritation, trauma, hormonal imbalance, genetic factors, etc. Infection and chronic inflammation contribute to 25 percent of neoplasm cases through genetic and epigenetic alterations (Hussain and Harris, 2007). The present report deals with surgical excision of angiofibroma, a rare vaginal tumor in a buffalo in her advance pregnancy.

### History and Clinical Findings

A seven year old female Murrah buffalo was presented with history of eight months pregnancy, continuous straining, urinary incontinence, cervico vaginal prolapse since last four days, blood tinged vaginal discharge, inappetence, uneasiness and partial protrusion of vaginal growth through vulval opening (Fig.1) during straining. Physiological parameters like heart rate, respiratory rate, rectal temperature and ruminal motility were in normal range. Complete blood count showed normal hematological parameters. Per vaginal examination revealed presence of cauliflower like growth at vaginal floor with pedunculated stalk. Animal showed

continuous straining while urination as well as defaecation causing generalized discomfort. Before surgical resection, animal was scanned for status of pregnancy and foetus was normal in uterus.

### Surgical Procedure

Vulva and perineal area were thoroughly cleaned with mild antiseptic solution. Animal was anesthetized by high epidural anesthetic regional block (sacro-coccygeal space) and local infiltration anesthesia at the base of mass per vaginally under guidance of vaginal speculum with 2 percent Lignocaine. The base of growth was pedunculated and attached to vaginal floor causing partial obstruction of vaginal passage. Under vaginal speculum guidance, stalk of growth was excised including 1cm surrounding mucosal folds and bleeding was controlled by ligation with chronic catgut No. 1-0 and application of liquid nitrogen aiming to kill all cancerous tissue after resection. The excised mass was collected in 10 percent formalin for histopathology examination. Post-operatively antiseptic lavage of vagina passage was done with Povidone iodine + NS solution and antibiotic cream was applied at surgical site, Parenteral administration to animal was given with Inj. Dicrysticin<sup>a</sup> (Streptopenicillin) 5g IM, Inj. Meloxicam<sup>b</sup> 10 ml IM, Inj. Staderin<sup>c</sup> 10 ml IM and advised to repeat this treatment for five days and to apply antibiotic cream twice daily at the surgical site.

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a - Brand of Zenex Animal Health, Ahmedabad

b - Brand of Intas Animal Health, Ahmedabad

c - Brand of Medinex Lab Pvt. Ltd., Vadodara

## Vaginal angiofibroma



Fig. 1: Protrusion of vaginal growth through vulva during straining



Fig. 2: Multinodular pedunculated mass involving vaginal floor

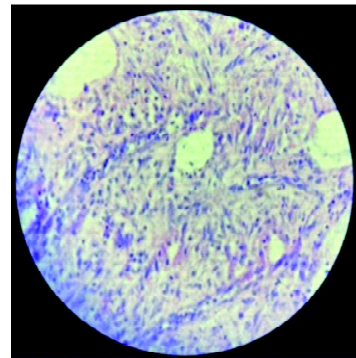


Fig. 3: Section showing granulation tissue over mass (H&E 100x)

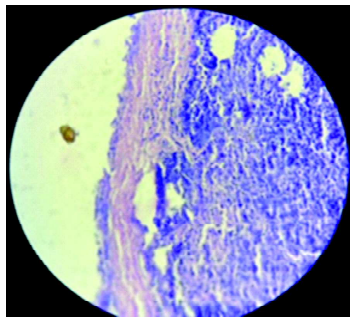


Fig. 4: Section showing proliferation of fibrous connective tissue around newly formed blood vessels

Grossly vaginal growth was cauliflower or nodular in appearance (Fig. 2) measured about 13x7x4 cm size was adhered to vaginal floor. On sectioning, edges appeared as creamy and reddish in colour. There were multiple necrotic foci and ulceration over the mass. Histopathologically, upper part of mass had granulation tissue (Fig. 3) with pinkish debris along with bacterial colonies at top. Very severe infiltration of acute inflammatory cells (neutrophils) along with debris was noted just beneath pinkish debris. Below granulation tissue, there was severe proliferation of fibrous connective tissue around the numerous small to medium sized newly formed blood vessels (Fig. 4). Proliferating cells were large, spindle shaped and hyperchromatic and formed whirl like pattern multifocal. There was no much pleomorphism. Mitotic figures were also not observed. In between proliferating fibroblasts, pinkish collagen and occasional inflammatory cells were noted indicative of angiofibroma. Vaginal tumors don't have direct impact on fertility but they might interfere during parturition and

natural service (Noakes, 1996). Most vaginal tumors are benign in nature and requires surgical excision (Klein, 2007 and Prymak and Bright, 2008). Liquid nitrogen has great impact on cancerous tissue *i.e.* it kills cancerous cells (Borthwick, 1970). To conclude vaginal angiofibroma in advance pregnant buffalo was rarest tumor which was resected successfully with surgical excision and use of liquid nitrogen. During follow up period, animal gave birth to healthy female calf with normal delivery.

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