

Surgical Management of Perianal Adenoma in a Dog

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Abstract

A seven year old intact male dog was presented with history of growth at perianal region since one month. The animal had constant straining, licking and scooting, initially the mass was peanut sized and gradually grown. Examination of the perianal region revealed pink firm irregular circumscribed mass 3 cm in diameter at the dorsal aspect of the anus. Haematobiochemical parameters were normal and survey radiography of lateral thorax view showed no metastasis. Surgical correction was resorted and the mass was excised. Histopathology confirmed adenoma.

Keywords: Dog; perianal adenoma; surgical management

Introduction

The incidence of perianal adenoma is reported about 2 percent of all skin tumors and 17 percent of perianal tumors in dogs (Turek and Withrow, 2007). Most frequently affect intact, middle-aged and older male dogs. Female dogs develop these tumors only infrequently, most affected female dogs have been spayed (Kirpensteijn and Jolle, 2006). It is three times more likely to be found in intact male dogs than females, and perianal gland adenocarcinomas are ten times more common in male dogs than females (Pisani *et al.*, 2006). The most commonly affected breeds are Beagle, Bulldog, Siberian Husky, Cocker Spaniel, Pekingese and Samoyed (Withrow, 1996). The present case reports occurrence of perianal adenoma in a dog and its surgical management.

History and Observation

A seven year old Non-descript intact male dog weighing 19.5 kg was presented with history of growth at perianal region since last one month. The owner also reported that animal had constant straining to defecate, local irritation, licking the anus and scooting of hind end along the ground, initially it was like a peanut shaped and gradually growing mass. On clinical examination, the animal was apparently healthy and all vital parameters were within normal range. Palpation of mass revealed pedunculated, pink irregular circumscribed mass 3 cm in diameter at the dorsal aspect of anus (Fig. 1). Haematobiochemical parameters were normal and

survey radiography of thorax lateral view showed no metastasis. Surgical correction was resorted to.

Treatment and Discussion

Pre-operative antibiotic injection Cefotaxime and analgesic Tramadol were administered intravenously @ 20 mg/kg b.wt. and 0.2 mg/kg b.wt. respectively. The animal was premedicated using Atropine sulphate @ 0.4mg/kg intramuscularly followed by Diazepam @ 0.03mg/kg b.wt. intravenously. General anaesthesia was induced with Ketamine 5mg/kg b.wt. intravenously and maintained with quarter to half the dose of Ketamine and Diazepam as and when it required. The surgical site was prepared aseptically and an anal plug was placed. A circular incision was made around the tumor mass and separated fascia. Blood vessels were ligated using No.1-0 polyglactin 910 and mass was resected. Skin was apposed by simple interrupted manner followed by prescrotal castration was performed. Histopathological examination revealed presence of clusters of neoplastic cells consisted of hepatoid cells. Neoplastic cells contained centrally placed nuclei with prominent nucleoli and few mitotic figures were seen. Resting cells were also observed. Based on the gross and histopathological examination, the mass was confirmed as perianal adenoma.

Perianal adenomas are benign, slowly growing tumors that arise from cells of sebaceous glands around the tail area. These tumors are confined to skin and are not attached to underlying structures. The lesions may occur as single or multiple masses or as diffuse, relatively flat sheets of sebaceous tumor cells. The size ranged from about 0.2 to 1.2 inch in diameter. These growths frequently ulcerate and

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Fig. 1: Perianal adenoma, a pink firm irregularly circumscribed mass

resulting into broken skin that may become infected. Perianal adenomas may quietly grow for months or even years. Perianal tumor cells are stimulated by testosterone produced mostly by the testes and to a much lesser extent by adrenal glands (Petterino *et al.*, 2004).

The treatment of choice for intact male dogs with confirmed, benign perianal adenoma is removing the tumor and neutering the dog at the same time will help to prevent 95 percent recurrence (Thomas and Fox, 1998). In the present case the same procedure was performed and till date there is no recurrence. Surgery is indicated for tumors that are smaller and less invasive and if there is no evidence of spread beyond the local lymph nodes. It involves removing the tumor with a wide margin of normal tissue both around and underneath it to increase the likelihood of removing the entire tumor. This can be difficult due to the location of tumor which is close to anal sphincter and it is uncommon for wide excision to be achieved and some residual tissue is left. If tumor occupies more than half of circumference of anal sphincter, removal of the entire tumor can result in faecal incontinence (Goldschmidt and Shofer, 1992). If tumors are relatively small, they may be removed by cryotherapy (Hayes, and Wilson, 2008). If tumors are large, after castration they will be monitored for one to two months before surgical excision is performed. The reason for waiting period is that as testosterone levels decline after neutering, the tumors will shrink and thus removal will be easier and less trauma. In some cases, tumors will completely disappear and no surgery will be needed

(Goldschmidt and Shofer, 2004). Perianal adenomas in female dogs are removed with cryosurgery or excisional surgery. Treatment is highly successful and prognosis is good. In 10-20 percent of treated cases the lesions may recur. Castration eliminates the major source of testosterone. Generally, neutering male dogs early in life will help prevent the original development of perianal adenomas and adenocarcinomas and other such growths. In some exceptional situations, where castration is not a considered option, estrogen may be administered to shrink the tumors. The major drawback to this treatment approach is that the hormone may cause bone marrow suppression, which could be life threatening (Thomas and Fox, 1998).

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