Case report

SURGICAL MANAGEMENT OF PERIANAL ADENOMA: A CASE REPORT OF TWO DOGS

Abstract

An eight and five years old intact male dogs presented with the history of straining, licking and scooting in the perianal region since five and two month, respectively. Clinical examination revealed a circumscribed mass of 2 cm diameter in the Rottweiler dog and 7 cm in the non-descript dog in the perianal region. Haemato-biochemical parameters showed relative neutrophillia and anemia whereas survey radiography of lateral thorax revealed no metastasis. Surgical resection of the mass was done under general anesthesia. Histopathology revealed the growths as perianal adenoma.There was no reoccurrenceon three months follow up in both the dogs.

Key words: Dog, Perianal adenoma, surgical management.

Introduction

Perianal region of the dog is frequently affected with three types of glandular tumours; apocrine gland tumour of anal sacs, circumanal, perianal or hepatoid tumours and anal gland tumours. The incidence of perianal adenoma is about 9-18% of all skin tumors and accounts for the third most prevalent tumour in male dogs (Bray, 2011). The most commonly affected breeds are Cocker Spaniel, Pekingese, Beagle, Siberian husky, Bulldog and Samoyed (Turek and Withrow, 2007). There can be reduction in re-occurenceup to 95% of adenomas and hyperplasia cases after castration at the time of surgical excision (Brodzki *et al.,* 2021). The present study reports the occurrence of perianal adenoma in intact Rottweiler and non-descript dog and their surgical management.

Case Presentation

An eight years old non-descript intact male dog weighing 8 kg and a five years old intact Rottweiler dog, weighing 22 kg were brought with history of growth in the perianal region since last five months and two months, respectively. The dogs had the history of constant straining, licking and scooting in the perineal region. The mass was reported to have increased gradually from initial peanut size. On clinical examination, the dogs were apparently healthy with slightly pale mucous membrane but all vital parameters were within normal range. Hematology revealed relativeneutrophilliaand anemia. Palpation of perianal growth in Rottweiler revealed sessile, circumscribed mass of 2 cm in diameter (Fig. 1A) whereas in non-descript it was firm in consistency, encapsulated and round mass of 7cm in diameter (Fig. 1B) on the lateral side of the anus. Chest radiography was negative for metastasis.

Comment [jj1]: In 8-year-old..... and 5-year-old Rottweiler
That is,
SURGICAL MANAGEMENT OF PERIANAL ADENOMA IN 8-YEAR-OLD..... AND 5-YEAR-OLD ROTTWEILER: A CASE REPORT.

Comment [jj2]: Case reports should have the following sections: Aims, Presentation of Case, Discussion and Conclusion
As required by the journal
Remove paragragh (that is, mean indentation)

Comment [jj3]: on

Comment [jj4]: . This was noticed about five and two months respectively, prior presentation

Comment [jj5]: Did not see the biochemical parameters. Hence, present it or leave it as heamatological parameters

Comment [jj6]: Not sure of the term, rather, survey radiography of the thorax(or use "left lateral" or "right lateral" view of the thorax)

Comment [jj7]: Why evaluate for thoracic metastasis, leaving the perianal,popliteal and inguinal lymphnodes.
Why not also evaluate the pelvic, abdomen before the thorax
Don't discuss result that is not presented. Where is the radiograph
You have room for five images

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Comment [jj9]: There was no reoccurrence, during the three months follow up of both dogspost surgery.

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Comment [jj14]: an intact

Comment [jj15]: it should be defined: an indigenous dog or a cross between so and so breed

Comment [jj16]: replace "presented"

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Note: justify the surgery in an anemic patient

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The dogs were anaesthetized with balanced anaesthetic protocol with pre-medication using atropine @0.04 mg/kg IM and Midazolam @ 0.2mg/kg IM. Induction was done with propofol @ 4mg/kg IV. Maintenance of anaesthesia was done with Isoflurane @ 1-2 % with oxygen with flow rate of 50 ml/kg. The surgical site was prepared aseptically and an anal plug was placed to prevent intra-operative contamination. A circular incision was made around the tumor mass and fascia was separated in both the cases. Tumorous masses were resected and blood vessels were ligated using polyglactin 910 no.1-0 (Fig. 2). Skin was opposed with interrupted horizontal mattress followed by pre-scrotal castration.

Resected masses were sent for histoptathology which revealed it to be a hepatoid gland tumor or perianal adenoma. There was presence of neoplastic cells arranged in cords pattern which resembled like hepatocytes. The neoplastic cells were polyhedral and centrally located ovoid, vesicular nucleus, centrally placed nucleoli and eosinophilic cytoplasm. Single cell layer thickened basloidcells were present in the periphery. These cords are separated by interlobular stroma, with abundant inflammatory cells and congested blood vessels (Fig. 3 AC)

Post operative medication with broad spectrum antibiotic and analgesic was done for five days in both the cases. Sutures were removed on 14thday. Both the dogs showed uneventfully recovery. A three month post operative follow up revealed no reocurrence in both the cases.

Discussion

Hepatoid gland tumor/ Perianal adenoma is slow-growing benign tumour that develops from sebaceous gland cells in the perianal region. Petterino*et al.* (2004) stated that, testosterone stimulates the tumorous cells. Castration was done to prevent thereocurrence in both thecases. The size of the mass may shrink after one or two months of castration due to low level of testosterone making its removal easy (Hayes and Wilson, 2008). The growth might appear as single, numerous masses, diffuse, relatively flat sheets of sebaceous tumour cells, or any combination of these (Shelley, 2002). Although, benign lesions are rarely adherent to surrounding structures, they may ulcerate and become infected (Jakab *et al.,* 2009). Faecal incontinence may be seen postoperatively if tumour occupies more than half of circumference of anal sphincter (Goldschmidt and Shofer, 2004). No such complication was seen in both of the operated cases in the present study till three months of follow up. The tumourscould be removed using cryotherapy if size is small (Liska andWithrow, 1978). Hepatoid adenoma and epithelioma can also be removed effectively using electro-chemotherapy with an overall success rate of 93.9% (Tozon*et al.,* 2010). Perianal adenomas have excellent prognosis if surgically removed, however, their malignant equivalent has a worse prognosis due to problems with local reocurrence and possible metastasis (Morris and Dobson, 2001).

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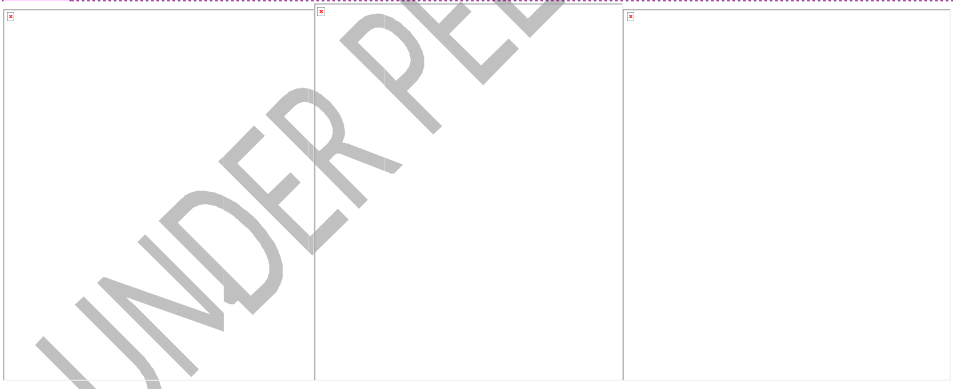
Fig. 1: Photograph showing small (A) and large (B) round growth/mass in perianal region

Fig. 2: Photograph showing surgical excision of round mass



A B C

Fig. 3: Photomicrograph showing presence of neoplastic cells arranged in cords pattern which resembled like hepatocytes. The neoplastic cells were polyhedral and centrally located ovoid, vesicular nucleus, centrally placed nucleoli and eosinophilic cytoplasm.

Comment [jj72]: Note: insert arrows to specify what you are trying to show, especially in the photomicrograph

Comment [jj73]: Add image of excision in rottweiler as 2b
Add image post healing or at three months as 2c and 2d

Comment [jj74]: Add image of the cytology as 3d (if available)

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shrinks due to low level of testosterone.