

Clinical Management of Seminoma in 2 Dogs

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Abstract

A 10 and 4 year old mongrel and spitz dog were presented with inappetance and gradually enlarged testicle on parapenile region. The dogs were cryptochid. A paramedian incision was made on testicle in mongrel dog and left paramedian incision was made directly on swelling for spitz dog and testicles were exposed, spermatic cord was ligated. The contra lateral testicle was removed through scrotal incision and scrotum was ablated to prevent further swelling post operation. Biopsy of testicle and fine aspiration results confirmed diffuse seminoma. Both dogs had an uneventful recovery.

Keywords: Cryptochid; seminoma; surgery

Introduction

Primary testicular neoplasms are common in dogs greater than 6 years of age and with a mean age of 10 years (Bethany *et al.*, 2007). The most common primary testicular neoplasm is seminoma (Ladd *et al.*, 1993) which during metastasis spread to spermatic cord (Takiguchi *et al.*, 2008). They are characterized by testicular enlargement either unilateral or bilateral and obviously in intact males to form an intra testicular mass. The etiology is not well understood but cryptochidism especially inguinal retained and increased age are well known risk factors (Meuten *et al.*, 2002).

Seminoma without sign of hyper oestrogenism has an excellent prognosis. This report presents two cases of canine seminoma in a Mongrel and Pomeranian dog respectively.

History and Observations

Case 1

A 10 year old Mongrel dog was presented with history of inappetance and gradually enlarged right testicle on parapenile region for past 1 month. The dog was a cryptochid. On clinical examination, dog had an enlarged right testicle in parapenile region and other left atrophied testicle in scrotum (Fig.1).

Case 2

A 4 year old Pomeranian was presented for elective castration. Clinical examination revealed

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absence of testicles in scrotal sac while two swellings were palpated, one testicle of 5 cms in diameter and other one of 1 cm diameter on parapenile regions. The testicle was grossly enlarged and animal did not evince pain on palpation. Hence it was diagnosed as a case of bilateral cryptochidism. (Fig.2)



Fig. 1: Right retained testicle parapenile (Case-1)



Fig. 2: Left and right retained testicles (Case-2)

Penile atrophy, preputial enlargement and sagging were evident in both the cases. A complete blood

and biochemistry profile was done to rule out neutrophilia, shift to left and internal organ health prior to surgery. A fine needle aspiration was done using a 21G to find the tumor type. The results of complete blood count and biochemistry were normal.

Results and Discussion

Both dogs were premedicated and sedated with Atropine sulphate and Xylazine at dose rate of 0.04 mg/kg and 1 mg/kg b.wt intramuscularly respectively. The animals were induced anaesthesia with Ketamine and Diazepam at the dose rate of 10mg/kg and 0.5 mg/kg b.wt intravenously and were maintained with 1/3rd of the same.

A paramedian incision was made on right testicle (seminoma) in mongrel dog and a left paramedian incision was made directly on swelling for Pomeranian dog and testicles (seminoma) were exposed, ligation of spermatic cord was done using chromic catgut no.1. The contra lateral testicle was removed through scrotal incision and scrotum was ablated to prevent further swelling post operation for Mongrel dog and a right parapenile incision was made to remove the atrophied testicle in case of Pomeranian dog. Biopsy of testicular mass was sent for analysis. The obliquus abdominis muscle and rectus abdominis muscle were sutured with prolene No.1-0 and skin was sutured with silk thread.

Biopsy revealed diffuse seminoma of right and tubular seminoma of left testicle (Fig. 3 and 4) respectively in both cases.

Post-operative medical therapy with broad spectrum antibiotic (Cefotaxime @ 20 mg/kg i.m b.i.d.) for 5 days and Melonex^a (Meloxicam @0.1mg/kg i.m) for 3 days respectively along with daily dressing of scrotal and parapenile wounds were done using Povidone iodine with restricted exercise. The animals had an uneventful recovery without complications.

Seminomas are common tumor of testes (42%) that are unilateral or bilateral, which are likely to develop in dogs that have one or both testicles not descended from body cavity (Daniel *et al.*, 2001). In our case, Mongrel dog had seminoma in one testicle and atrophy of other testis (non cancerous) and penis, similar occurrence was

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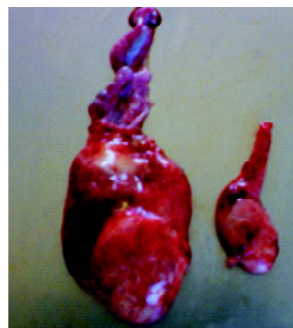


Fig. 3: Gross of right seminoma testicle and left atrophied testicle



Fig. 4: Gross of right seminoma testicle and left atrophied testicle

reported by Daniel *et al.*, (2001). The tumor was benign and was non metastasis evident through thoracic and abdomen radiographs. The Pomeranian dog was a bilateral cryptorchid, the most consistent factor for development of seminoma in dogs (Yates *et al.*, 2003).

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