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## UNUSUALLY LARGE INGUINAL SEMINOMA AND ITS SURGICAL MANAGEMENT IN A DOG

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Testicular tumours are the second most frequently reported tumor in old male dogs (Hayes and Pendergrass, 1976). The incidence of sertoli cell tumour and seminoma was approximately twice as high in dogs with unilateral retained inguinal testis (John et al., 1979). It constitutes 4 to 7 percent of all canine neoplasms and 90 percent of tumors of the male genitalia (Don, 1962). Testicular tumours can occur individually or combination of two or more (Hayes and Pendergrass, 1976). Cryptorchidism increase the risk of testicular neoplasia in dogs by as much as 13.6 times; risk factors by tumour type is 23 times for sertoli cell tumours, 16 times seminoma and 1.6 times for interstitial cell tumours (Scolly, 1952). Canine seminomas are around, 1mm to 10cm in diameter and pale cream in colour or grey (Don, 1962). Testicular torsion was reported in abdominal testicle with seminoma (Pearson and Kelly, 1975). Incidence of metastasis of seminoma in dog was 4 percent and the mean age of occurrence was 10.2 years (Lipowitz et al, 1973). The present paper discusses the surgical management of a huge inguinal seminoma in a dog.

### Case history and Findings

A German shepherd male dog of eleven years

of age was referred to the Small Animal Out-Patient Unit of Madras Veterinary College Teaching Hospital, with the history of alopecia and progressive swelling of the right scrotum since two months (Fig. 1). The dog was reported to be unilateral cryptorchid on its right side since birth. Physical examination revealed a huge hard mass involving the right scrotal and inguinal region. Routine haematological and blood biochemical examination revealed normal values. Survey radiograph of the thorax revealed no metastasis. Surgical correction was resorted to.

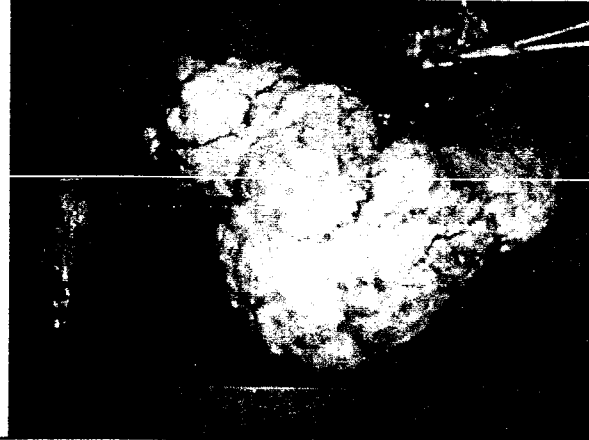
### Surgical Treatment

Food was withheld for 12 hours before surgery and the dog was allowed to take water upto 2 hours prior to surgery. Ceftaxime and meloxicam was administered intravenously at a dose rate of 20 mg/kg and 0.2 mg/kg respectively preoperatively. The dog was premedicated with atropine sulphate at the dose rate of 0.04 mg/kg b.wt intramuscularly followed by xylazine hydrochloride at a dose rate of 1 mg/kg b.wt intramuscularly. General anaesthesia was induced with a mixture containing 100mg of ketamine hydrochloride and 2.5mg of diazepam at the dose rate of 5mg/kg, bd wt of ketamine hydrochloride and 0.125mg/kg, bd. wt of diazepam

Fig. 1: Swelling of the inguinal and scrotal region



Fig. 2: Resected tumour mass along with left testis



intravenously. The anaesthesia was maintained with 1/3 to 1/2 of induction dose of above mixture intermittently as and when required.

A linear skin incision was made transversely over the tumour mass and the underlying fascia was incised to expose the tumour mass. Around 200 ml of clear fluid was aspirated in and around the tumour mass. Lobulations were noticed over the tumour mass. Exteriorized mass revealed to be a testicular tumour and was resected en-block along with orchiectomy (Fig. 2). The size of the affected testis was 28cm length and 18cm in diameter. The resultant skin pouch was trimmed to body contour and apposed by subcuticular suture using 1-0 PGA. The skin edges were apposed by silk. Under a pre-scrotal incision, castration was done for the left testis. The size of the left testis appeared less than normal for this dog. The pre-scrotal skin incision was apposed using silk. Injection Cefotaxime at the dose rate of 20mg/kg bd. wt intravenously, once in a day was given for three postoperative days.

### Results and discussion

The affected testis was hard in consistency, grey colour and had lobulations on its surface. Histopathology of the resected tumour mass revealed to be a seminoma. It was reported that the animal was unilateral cryptorchid on its right side, but the size of left testis was less than normal, this might be due to the effect of the growing testis tumourogenesis.

The size of the excised tumour was 28cm length and 18cm in diameter, which was about three times larger than the findings of Don (1962). The age of this dog was 11 years, which was in accordance with the findings of Lipowitz et al, (1973) who reported that the age of occurrence ranged from 3 to 17 years, with a mean of 10.2 years. This case is in agreement with Moulton (1961) who observed that the cryptorchidism and testicular tumour was most common in the right side than left side.

The tumour was located in the inguinal region, this was in accordance with the findings of Reif and Brodey (1969) who had found that the inguinal region was the common site for extrascrotal seminoma. Altered hormone production by the neoplastic testis

and possibly the pituitary gland and a variation in response by target organs might be responsible in part for clinical changes associated with testicular tumours. The dog had alopecia; this was in accordance with the findings of Brodey and Martin (1958). The animal had an uneventful recovery after surgery and there was no clinical symptom of alopecia during the later part of life.

### Conclusion

A German shepherd male dog of aged eleven years was presented with the history of alopecia and progressive swelling of the right inguinal region since few months. It was a case of inguinal seminoma. Under general anaesthesia, the mass was resected en-block along with orchiectomy. Histopathology of the resected tumour mass revealed a seminoma. The animal had an uneventful recovery.

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