SERTOLI CELL TUMOR IN A DOG: A CASE REPORT

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A five year old male mongrel dog was brought with the history of unilateral scrotal swelling for one month and not responding to the treatment. On physical palpation the scrotum was hard and warm. Left testis was of unusual size and the size of right testis was normal. Orchietomy was performed and testis measuring 10 cm in length and 5 cm width, was excised. Histopathological examination revealed the condition as sertoli cell tumor. The animal showed clinical recovery within 7 post operative days.

Keywords: Sertoli cell tumor, Dogs.

Sertoli cell is a nurse cell of the testicles that is a part of seminiferous tubules and helps in the process of spermatogenesis. These cells nourishes the developing sperm cells through the stages of spermatogenesis and also acts as phagocytes to eliminate the residual cytoplasm (Rato et al., 2012). Development of secondary sexual characters were not common in sertoli cell tumors. The most common tumors of testes are the Sertoli cell tumor, interstitial cell tumor and seminoma (Doxsee et al., 2006). Dufour et al. (2003) studied the surviving capacity of the sertoli cells on transplantation which explains the possible reason for the development of the sertoli cell tumor in castrated male. Cryptorchid dogs appear to have a 13.6 times higher risk of testicular tumor than normal dogs. Male dogs with an inguinal hernia have an increased risk of testis tumors (Hayes and Pendergrass, 2006)

Case history and Clinical observations

A five year old male mongrel dog was presented to Teaching Veterinary Clinical Complex, College of Veterinary Science, Proddatur, with the history of unilateral scrotal swelling for past one month (Fig. 1). The swelling was hard and warm and was restricted to left testis. Right testis was normal. The animal was showing prominently developed teats. Fine needle aspiration was collected and sent to the Department of Pathology for cytological examination. The sample was positive for malignant cells. The cells exhibited vacuolar and basophilic staining cytoplasm with irregular nuclear content (anisokaryosis). The testicular mass excised was examined histopathologically. The histopathological study confirmed the mass as sertoli cell tumor. Histopathological picture showed cells with pale eosinophilic cytoplasm and abundant fibrous tissue stroma and less prominent tubular structures (Fig. 2).

Fig. 1: Dog with enlarged scrotum and prominent teats

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Treatment and Discussion

The animal was prepared for orchiectomy procedure and premedicated with Atropine sulphate @ 0.02 mg/kg body weight intramuscularly and sedated with Inj. Xylazine @ 1.0mg/kg body weight intramuscularly. Anaesthesia was induced by intramuscular administration of Inj. Ketamine @ 10mg/kg body weight and maintained with anaesthetic mixture of Inj. Ketamine and Diazepam. An elliptical incision was made on the neck of scrotum and the testis was exteriorised (Fig. 3). The structures of spermatic cord were ligated and severed to release the mass (Fig. 4). The normal testis was also excised as the scrotal septum was absent and was exposed through first incision. Inj. Cefotaxim @ 20mg/kg was administered intravenously for 5 consecutive days and Inj. Meloxicam @ 0.3mg/kg was administered intramuscularly for 3 consecutive days as post operative care. The sutures were removed on 7th post operative day. The animal showed uneventful recovery after surgery.

The occurrence of sertoli cell tumor may be due to presence of embryological ectopic testicular tissue and testicular tissue transplanted during castration procedure or as a result of trauma to the testis. In present case the animal was adult intact male and development of tumor mass was over a month and unilaterally. So possible reason for neoplasia is trauma or embryological ectopic testicular tissue. In this case we found surgical excision of the tumor is the best treatment for the condition and the animal showed clinical recovery after surgery.

References


