Case Report

Testicular Tumor in a Colt – A Case Report

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Abstract

A three and half-year-old colt was presented to the Department of Surgery and Radiology, Veterinary College, Bangalore with a history of swelling in the scrotum for two months. On clinical examination, a hard-uniform mass of testicle palpable within the left scrotal sac. The gelding was performed using xylazine and ketamine anesthesia. Histopathology confirmed the case as diffuse testicular seminoma. With a course of antibiotic, analgesic and with regular wound dressing, the animal showed uneventful recovery.

Key words: Colt, Gelding, Seminoma, Testicular Tumor

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Introduction

Equine testicular tumors are scarce. Teratomas and seminomas are the most frequent ones. The males are castrated early in life which probably explains the low incidence of testicular tumors in the total equine population (Peterson, 1984). Testicular tumors will arise from germ cells and sex-cord stromal elements of the testis and were divided into four general categories: germ cell, sex cord-stromal, mixed germ cell sex-cord stromal and primary tumors not specific to the testis (Farjanikish *et al.*, 2016). Sertoli cell tumors may develop in descended or retained testes; atrophy of the contralateral testis and metastasis to other tissues may also develop (Pratt *et al.*, 2003). In this paper, a testicular tumor (diffuse testicular seminoma) and its successful surgical management in a colt have been described.

Case History and Observation

A three and a half-year-old colt with swelling in the scrotum for two months was presented to the Department of Surgery and Radiology, Veterinary College, Bangalore. On clinical examination, the moderately built colt with the presence of hard uniform mass involving the testicle of the left scrotal sac (Fig. 1) and the other testicle

found normal. Upon palpation, the animal was not shown any pain or discomfort but causing discomfort during walking. Therefore, it was planned for the gelding.

Fig. 1: Colt with left testicular tumor

Treatment and Discussion

Colt was administered with inj. Tetanus toxoid one day before surgery. Feed was withheld for 18 hours and water for 12 hours before anesthetic induction. Colt was premedicated with xylazine (@1.1 mg/kg body weight) intravenously. After complete sedation was achieved, the animal was restrained by the sideline technique. The anesthesia was induced by ketamine hydrochloride (@2.2 mg/kg body weight) intravenously. Surgical site was prepared aseptically. Incision was made through the ventral scrotal skin, tunica dartos and scrotal fascia parallel to the median raphae. Using digital dissection, the parietal tunic surrounding the testicle was freed of the scrotal fascia. By placing traction on the testicle with one hand, the parietal tunic of the cord was separated from spermatic fascia with another hand and the parietal tunic was incised to exteriorize testicle. Testicles were removed along with its contents using emasculator and transfixion of the spermatic cord using chromic catgut No. 2. The cavity was plugged with roller gauge. The scrotal skin was kept open following castration and animal recovered from anesthesia without any adverse effects (Fig. 2). Post-operatively, wound dressed with 5% povidone-iodine ointment. Inj. Dicrysticin-s (10000 IU/kg b. w. i.m.) was administered daily for 5 days, Inj. Flunixin meglumine (2.2 mg/kg b.w. i/m) was administered for 3 days. The daily antiseptic dressing was carried out by using a 5% povidone-iodine solution and after 15 days animal showed uneventful recovery.

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Fig. 2: Colt after surgery with exteriorized testicles

Histopathological examination of tumor mass revealed round / polygonal tumor cells arranged in sheets, destroying the walls of seminiferous tubules separated by a fine fibrovascular stroma. The neoplastic cells had granular eosinophilic cytoplasm and round to ovoid vesicular nuclei with prominent nucleoli. Anisokaryosis and mitotic figures observed frequently suggestive of diffuse testicular seminoma (Fig. 3).

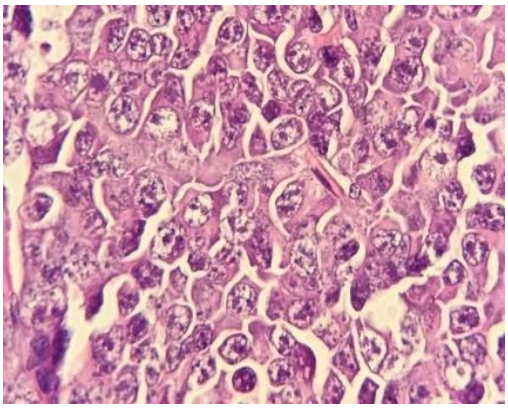

Fig. 3: Photomicrograph suggestive diffuse testicular seminoma (H & E, 1000x)

Equine testicular tumors were rare conditions. In a study conducted by Kerr and Aldin (1974), out of 1404 necropsies and 846 biopsies, only one testicular tumor was found. Several cases of teratomas in cryptorchid testes were recorded and were the most frequently reported testicular tumor in the equine (Rebar *et al.,* 1979). Pratt *et al.* (2003) opined that the most common testicular neoplasm of adult horses is seminoma, which occurs in inguinal retained or descended testes, causes marked testicular enlargement and may metastasize. In the present case, diffuse testicular seminoma was recorded. There are many techniques used for the castration of equine like open method, closed method, semi-closed technique and Section- Ligation-Release (SLR) technique (Saifzadeh *et al.,* 2008). In the present case, an open method of castration was performed, because of the large-sized tumor. Moll *et al.,* 1995 reported complications like scrotal swelling or edema, excessive

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postoperative hemorrhage, infection, hydrocele, scirrhous cord, peritonitis, penile trauma, omental herniation and eventration. In our case, no postoperative complications were noticed and the animal recovered uneventfully.

Conclusion

A three and a half-year-old colt with diffuse testicular seminoma was successfully managed by performing gelding.

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