

SURGICAL MANAGEMENT OF TESTICULAR INTERSTITIAL CELL ADENOMA (LEYDIG CELL ADENOMA) IN A STALLION

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SUMMARY

An eight year old stallion was presented at field condition for routine health examination and castration. Upon examination tumorous like growth of the right testis was felt when compared to left. On palpation it was hard and no pain was evident. Under general anaesthesia, castration was undertaken and the right testes was found to be hard and enlarged when compared to left. Histopathological analysis of the excised right testis revealed it to be an interstitial cell adenoma.

Key words: Adenoma, Interstitial, Stallion, Testis

Equine testicular tumours are rarely reported and it may be due to low incidence of such tumours in stallion and due to practice of castrating the horses when they are young (Gelberg and McEntee, 1987). Both cryptorchid and non-cryptorchid stallions can be affected with testicular tumours but the occurrence in cryptorchid horses is more frequent than non-cryptorchid horses (Amann and Veeramachaneni, 2006). Leydig cell or interstitial cell tumours are sex cord stromal tumours of the testicle arise from and histologically resemble the interstitial cells of the normal testicle (Agnew and MacLachlan, 2017)

An eight year old thoroughbred stallion was presented for routine physical examination and castration at the field level. Animal was active, alert and had normal appetite and feeding behaviour. On visual examination, the scrotal sac appeared larger on the right side (Fig.1) whereas the counterpart on left side of the scrotum appeared normal. On physical examination the swelling was hard and on palpation animal did not evidence any pain. Because of the huge swelling, animal was unable to walk or trot normally and the owner was unable to use the animal for draught purpose. Therefore, it was decided to perform orchiectomy.

After proper aseptic preparations and preoperative tetanus toxoid injection; Inj. Xylazine hydrochloride @ 1.1mg per kg b.wt was used for sedation and anaesthetic induction was carried out by Inj. Ketamine Hydrochloride @ 2.2mg per kg b.wt intravenous followed by maintenance with Inj. Xylazine-Ketamine combination intravenous. Animal was restrained in lateral recumbency with the affected testes approached first. On surgical exploration of the right segment scrotal sac, the tunica vaginalis was very thick and the corresponding testis was found hard and large suggesting testicular tumour. The testis was removed after ligation of the spermatic cord (Fig.2). Similarly left sided testis was also removed in a similar technique. The left side testis was found to be normal in size and consistency. The surgically excised right testis was collected in 10% formalin for histopathological studies that revealed large distinctly

bordered eosinophilic cells interpreted to be hyperplastic and hypertrophic interstitial cells intermingled with pleomorphic spindle neoplastic cells suggesting interstitial cell adenoma (Fig.3).

Postoperatively antibiotic Inj. Strepto-penicillin 5gm and analgesic Inj. Flunixin meglumine @ 1.1 mg per kg b.wt were administered parenterally for a period of five days. Owner was made aware of the good management practices post-surgery and the outcome of the present case and no complications were reported during the postoperative follow up period.

Interstitial cell or Leydig cell tumours are more common in dogs but occurrence in bull, cat, pig, goat, donkey and stallion have also been reported (Agnew and MacLachlan, 2017). The most common cause of scrotal enlargement among animals include scrotal hernia, funiculus spermatic torsion, spermatocele, hydrocele, orchitis and testis/testes tumour (Hollet, 2006). Even though interstitial cells produce androgens, interstitial cell tumours rarely produce obvious manifestations of excessive androgen secretion (Agnew and MacLachlan, 2017). In the present case also no obvious change in behavioural activities were reported by the owner. Early

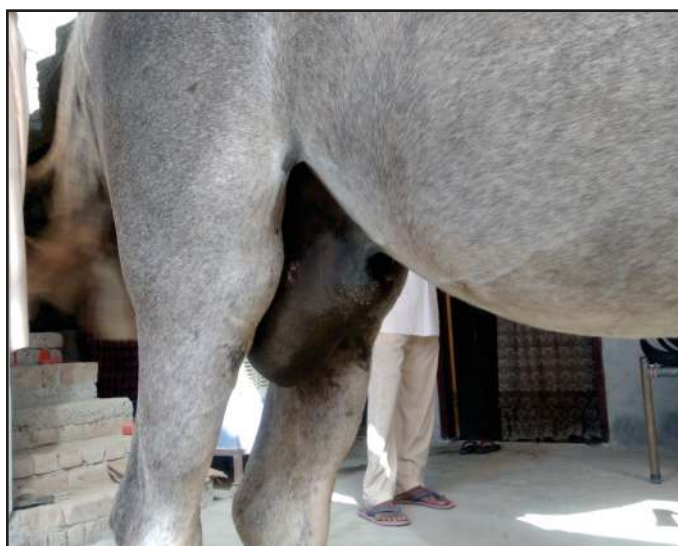


Fig.1: Stallion presented for castration with right sided scrotal swelling

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Fig.2: Surgically removed right testis

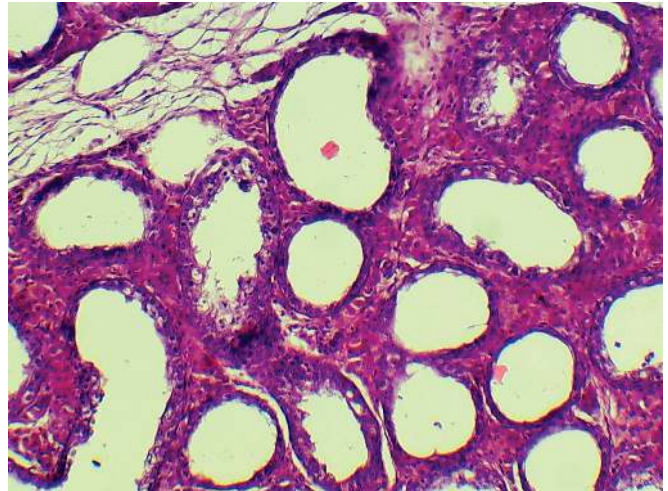


Fig.3. Microphotograph of histopathology revealing hyperplastic and hypertrophic interstitial cell suggesting interstitial cell adenoma.

diagnosis and timely treatment is better for the animal and avoids further complications.

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