TESTICULAR ECTOPIA IN A DOG AND ITS SURGICAL MANAGEMENT: A CASE REPORT

P. Dubey, J.S. Rajoriya, M. Baghel, D.N. Madhu, T.B. Sivanarayanan and J. Singh
Division of Surgery and Radiology and *Division of Animal Reproduction, Indian Veterinary Research Institute, Izatnagar -243122 (U.P.) India.
[Received: 30.1.2016; Accepted: 15.6.2016]

Cryptorchidism is hereditary disorder in dogs which arises due to testicular malposition of one or both testis. A two years old spitz dog was presented with the complaint of swollen mass in the right ventral abdomen region, lateral to penis. Physical examination revealed the condition to be right ectopic testis along with normal left testis in scrotal sac. Orchietomy was performed under general anesthesia for removal of both ectopic as well as normal testis. The ectopic testis was found to be morphological normal with slightly inflamed pampiniform plexus. The animal made an uneventful recovery following bilateral orchietomy. 

Key words: Ectopic testes, orchietomy

Testicular malposition represents a common developmental defect in dogs. Testis usually descend in to the scrotum within six to eight weeks of birth in dogs and this testicular descend is necessary for male fertility. Cryptorchidism is a sex linked autosomal recessive trait which can be described as testicular malposition anywhere from pole of kidney to scrotal sac or even subcutaneously near penis. The malpositioned testis may be present inside the abdomen or inguinal ring or any abnormal location outside the inguinal ring (Veronesi et al., 2009). The disease may affect one or both testis but unilateral condition is more common in dogs. The retained testicles are more prone to neoplasia, spermatic cord torsion and inguinal hernia. Bilateral orchietomy is preferred line of treatment after locating the retained testicle (Memon, 2007). The present paper reports a case of unilateral ectopic testes in the subcutaneous tissue in a spitz dog.

Case history and Observation
A two year old male spitz dog was presented to the Referral Veterinary Polyclinic, I.V.R.I., Izatnagar with complaint of swelling in right ventral abdomen region lateral to penis. History revealed that the swelling was gradually increasing in size along with age. Palpation of the scrotal sac revealed absence of one testicle in the scrotum and palpation of swelling revealed it to be ectopic testis retained in the subcutaneous tissue near the penile integument on the right lateral side.

Surgical Procedure
The animal was premedicated with Atropine sulphate @ 0.04 mg/kg body wt. S/C and anaesthetized using a combination of Xylazine hydrochloride @ 1 mg/ kg body wt. I/M followed 10 minutes later by Ketamine hydrochloride @ 10 mg/kg body wt. I/M. With the animal restrained in dorsal recumbency, surgical preparation of surgical site was carried out in routine manner. The scrotal testicle was removed as usual through scrotal incision while ectopic testicle (right side) was exteriorized through an incision given directly over the swollen mass. The spermatic cord was transfixed using chromic catgut no.1 and the testicle was excised in routine manner. Subcutaneous tissue was sutured using catgut no. 1 followed by skin closure using braided silk.

Postoperative Ceftriaxone (250mg) was administered once daily for 5 days while analgesic Meloxicam @ 0.5 mg/kg body wt. was administered for 3 days. Topical application of 5 % povidone iodine solution and fly repellant spray was advised daily for 7 days. Skin sutures were removed on 10th day postoperatively.

Discussion
The diagnosis of cryptorchidism could be made by digital palpation of scrotum as
also mentioned by Nath et al. (2008) which can be confirmed by ultrasound examination for detecting the location of retained testicle as also recorded by Felumlee et al. (2012) and Murthy et al. (2015). However, in the present clinical case, the exact location of the ectopic testes was confirmed by palpation which has also been reported by Kantharaj et al. (2014).

Memon (2007) reported that occurrence of cryptorchidism is higher in smaller breeds of dog compared to larger breeds with an overall incidence ranging from 1.2% to 10%. Hormonal treatment with human chorionic gonadotropin (hCG) and gonadotropin releasing hormone (GnRH) are of little efficacy and more over not recommended due to risk of hereditary transmission as also reported by Cox (1986).

The function of the contralateral testis in the scrotum of the dog is inhibited by autoantibodies produced by the artificial cryptorchid testis in the dog as also mentioned by Mengel and Moritz (1976). The endocrine and spermatogenic functions of contralateral testis of dogs with congenital unilateral cryptorchidism can be improved by cryptorchidectomy as also reported by Kawakami et al. (1988). Bilateral orchiectomy/castration is considered as treatment of ectopic testis to avoid the occurrence of testicular neoplasia, inguinal hernia, testicular torsion as also recorded by Boothe (1993). In the present case, the diagnosis of ectopic testis by manual palpation followed by bilateral orchiectomy was carried out successfully.

References