



# CANINE FEMALE HERMAPHRODITE - A CLINICAL CASE REPORT

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The intersex animal is an animal possessing characteristics of both sexes. Intersex animals are also called pseudohermaphrodites or hermaphrodites depending on their gonads (Howard and Bjorling, 1989). Hermaphroditism is a condition when the subject has ambiguous genitalia with a part or all of the genital organs of both the sexes are present (Passello and Mowat, 2004). Disorders of genital development occur in all species of mammals. A case of female pseudohermaphroditism noted in a dog is reported in this communication.

A ten year old female Spitz dog weighing 10 kg was brought to the Veterinary College hospital, Mannuthy, with a history of a hard mass of about 5 cm size on the ventral abdomen which was progressively growing for the last two months. The owner reported that the animal used to exhibit posture of a male dog while urinating and whelped once, six months back. Clinically all the physiological parameters were within normal range except for a congested mucous membrane. All the mammary glands were hard to palpate. Surgical removal of the mass was resorted to.

After overnight fasting, general anaesthesia was induced with intramuscular

injection of xylazine hydrochloride @ 2mg/ kg body weight followed by ketamine hydrochloride @ 5 mg/kg body weight intramuscularly after premedication with atropine sulphate @ 0.04 mg/kg body weight. General anaesthesia was maintained with intravenous injection of a combination of equal volume of xylazine hydrochloride and ketamine hydrochloride and diazepam "to effect". The site was prepared for an aseptic surgery and the animal was controlled on dorsal recumbency. A mid line skin incision of about 6 cm was made and the mass was bluntly dissected after proper ligation. While dissecting the mass involving inguinal mammary gland, a pair of well developed testicles could be noticed attached to with proper vascular bundle in a pouch formed by the tumour mass and external inguinal ring. Both these testicles were removed after ligating the spermatic cord (Fig.1). Subcuticular suture was applied using catgut 1/0 and the skin was apposed in horizontal mattress pattern using nylon.

Post operatively the animal was administered 500 mg of ceftriaxone sodium and the antibiotic treatment was continued for next four days. The sutures were removed on the eighth post operative day and the animal

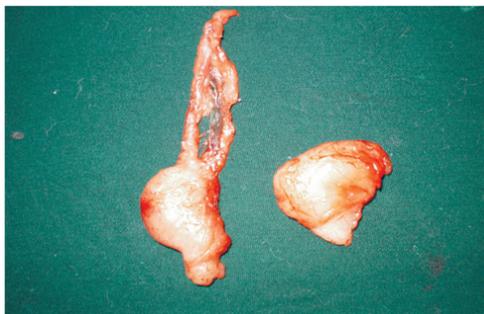


Fig.1. Testis removed from the female dog

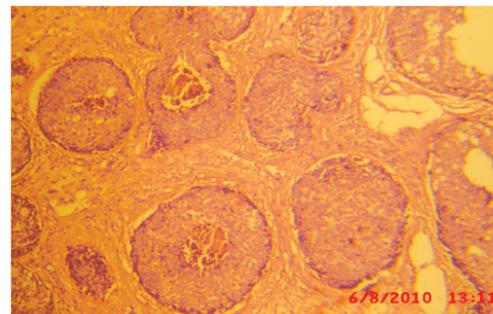


Fig. 2. Testis showing seminiferous tubules and interstitial spaces. H&E X100

had an uneventful recovery. Histopathology of the testis removed surgically revealed that it was an active testis (Fig.2). Testosterone level was estimated and it was within normal range for a female dog.

The developmental disorders of the genital tract are usually caused by abnormalities of genetic or chromosomal origin or inappropriate hormonal or chemical exposure (Passello and Mowat, 2004). A pseudohermaphrodite shows disagreement between phenotypic and gonadal sex and these individuals have a single type of germinal tissue, according to which they are male or female pseudohermaphrodite (Kennedy and Miller, 1993). The present case is in disagreement with the observation made by Alam *et al.* (2007), that a female pseudohermaphrodite had ovaries but male external genitalia. In the present case the dog was phenotypically female with pronounced testis and the condition was an accidental finding.

### Summary

A case of female pseudo hermaphroditism in a Spitz dog having mammary tumour and its surgical correction is discussed.

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