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**Short communication**

# TESTIS WITH ANNULAR EPIDIDYMIS IN MADRAS RED SHEEP - A REPORT

Abnormalities of epididymis like double epididymis and anteriorly placed epididymis have been reported (Mostofi and Davis, 1985). A rare type of abnormality involving epididymis and testis is recorded in this study.

The abnormal testis was collected from the scrotum of a Madras red sheep immediately after slaughter. The testis was examined macroscopically and sample was fixed in 10% formol saline for paraffin section. For microscopical examination 4$\mu$ sections were made and stained with Haematoxylin and Eosin.

The left testis was normal with epididymis related o the posterior border and measured 5.8 cm in length. On the right side, the epididymis was enlarged and was tightly encircling the testis (Fig. 1). The length and the circumference of encircling epididymis were 9.4 cm and 3.5 cm respectively. The caput of epididymis was related to the posterior border of testis and the body continued around its proximal extremity, anterior border, and distal extremity to reach the posterior border and the cauda continued upwards in relation to posterior border to meet the caput epididymis, and continued as vas deferens.

Due to the pressure exerted by the hypertrophied epididymis the right testis was considerably reduced in size, 3.3 cm in diameter, and was spherical unlike its counter part which was oval (Fig. 1) and soft. The right testis was firm and hard in consistency.

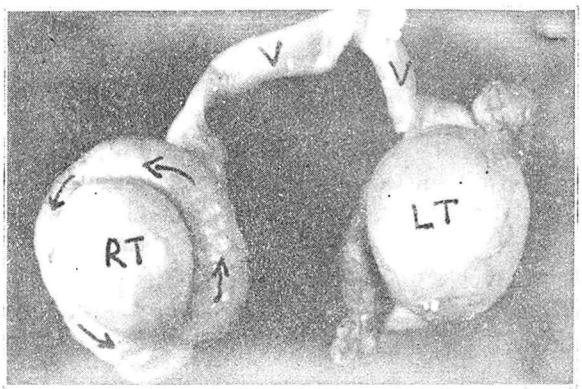


Fig. 1 Gross photograph of testis
Rt - Right Testis; Lt - Left Testis; V - Vas deferens; Arrow indicating the course of epididymis

Microscopical changes in seminiferous tubules (ST) showed evidence of pressure atrophy. The tunica albuginia (Fig. 2) was hypertrophied. The histological picture could be divided into; (1) changes related to the peripheral ST and (2) changes in ST located towards the centre. Though, the germ cells were present in all ST, in the peripheral ST a single layer of spermatogonia alone was present and there was no evidence of spermatogenesis. In contrast, the ST at the centre revealed spermatogonia, a few primary and secondary spermatocytes (Fig. 3)

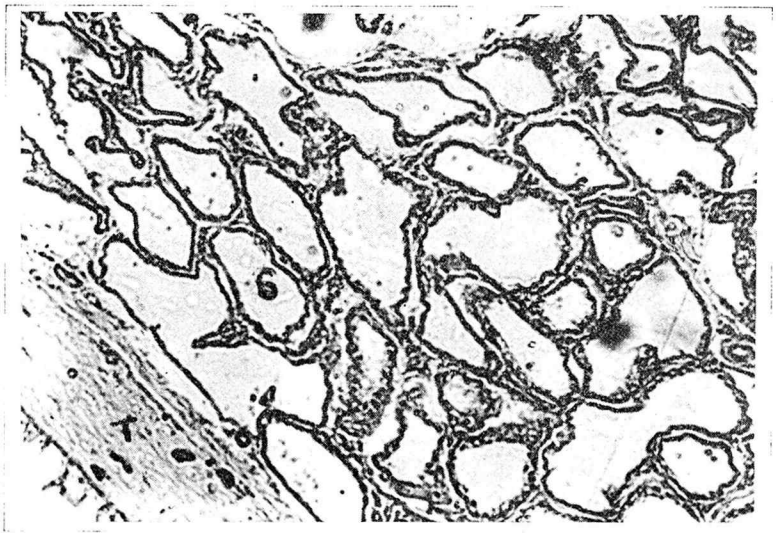


Fig. 2 Right testis - showing hyper trophied Tunica albuginia (T) and the peripheral seminiferous tubules (S) with single layer of spermatogonia. H & E x 100

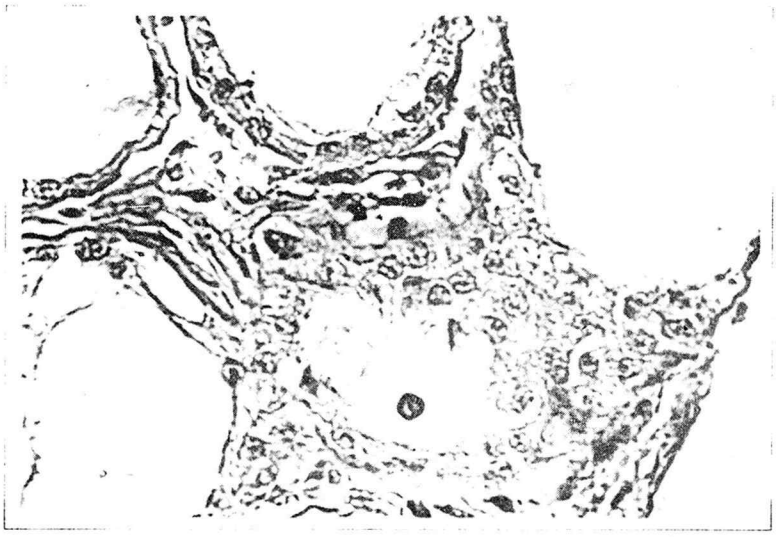

Fig. 3 Centrally located seminiferous tubule with spermatogonia and spermtocytes, Note the absence of spermatozoa. H & E x 200.

suggestive of spermatocytogenesis and lack of spermiogenesis. Interestingly, in all ST, spermatozoa were absent, basement membrane was hyalinised. Sertoli cells were present and Interstital cells of Leydig were found unaffected.

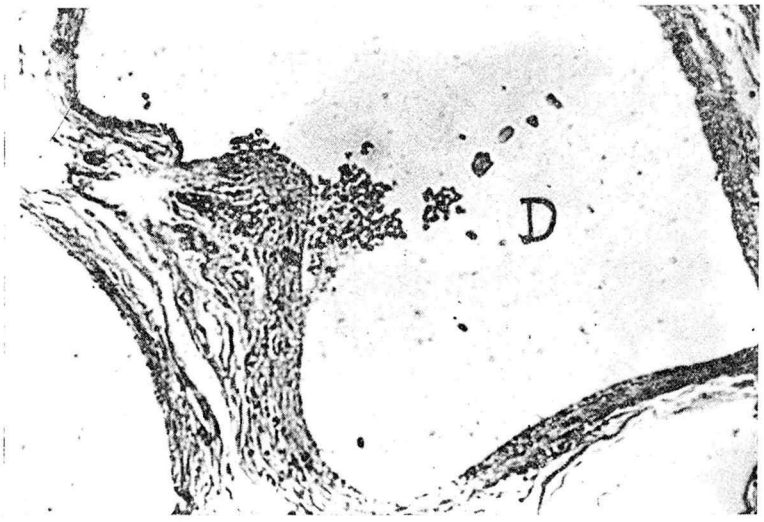


Fig. 4 Ductus epididymis (D) showing alveolar pattern of muscosal folds lined with stratified epithelium. H & E x 100

The hypertrophied epididymis showed wide alveolar pattern of mucosal folds lined by stratified epithelium and a few (Fig. 4) alveoli showed squamous metaplasia.

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## References

Mostofi, F.K., Davis Jr. C.J. (1985). Male reproductive system and prostate. In Anderson's pathology Ed. by Kisanne J.M. VII edition, volume one, pp: 809. The C.V. Mosby company, St. Louis, Toronto