

Cavernous Hemangioma of the Scrotum

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Abstract: Scrotal hemangiomas are rare benign neoplasms of the scrotum. Its diagnosis is often missed on ultrasonography. As the incidence of malignant neoplasm of testis is more than the benign neoplasms so radical orchidectomy is usually performed as a management because of suspicion of malignancy and the diagnosis is finally made on the histopathological examination. Reporting these cases emphasise in keeping it in the differentials of testicular neoplasms so that testis are preserved by not performing the orchidectomy thus preventing hypogonadism and infertility.

Key Words: Scrotum, testicular tumors, hemangiomas.

Introduction

Majority of testicular neoplasms arising in the males are malignant germ cell tumors. Benign tumors originating in testis are rare. Hemangiomas, which is one of the benign tumor is extremely rare in the scrotum. Its diagnosis is usually missed because of not being documented on ultrasonography because of which majority of patients undergo radical orchidectomy and the diagnosis is only made after histopathological evaluation of the surgical specimen (1). We report a case of 62 years old male who presented with testicular mass which was diagnosed as an extratesticular cavernous hemangioma on histopathological evaluation of orchidectomy specimen.

Case Report

A 62 years old male presented in surgical OPD for the complaint of right side progressive scrotal swelling from the past one year. He had recurrent episodes of pain on the affected side and developed an inguinal hernia. There was no other associated symptom. His general physical examination was unremarkable. Ultrasonography revealed a scrotal mass with suspicion of malignancy. He was operated for hernioraphy and right side orchidectomy. The specimen of orchidectomy was sent to Pathology Department PIMS.

A specimen was composed of right testicular mass measuring 5x4x3cm. On cut section a hemorrhagic and necrosed mass was seen in the scrotal sac separate from normal testis.



Figure-1. Testicular specimen measuring 5x4x3cm



Figure-2. The cut section of the specimen showing normal testis at the lower pole and hemangioma in the upper pole

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Figure-3. The normal testicular tissue on gross examination (an arrow)

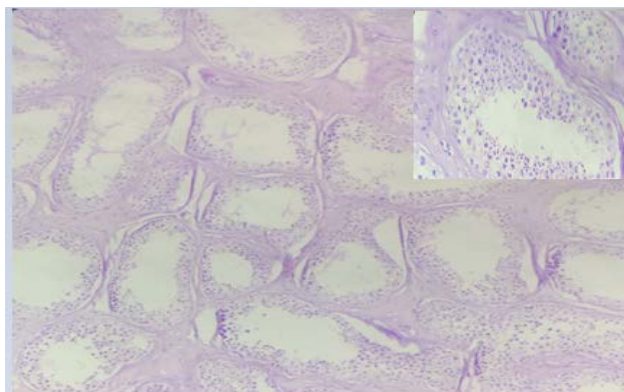


Figure-6. The seminiferous tubules with normal spermatogenesis (H&E x100)

Microscopic examination showed a benign vascular neoplasm. The neoplasm was composed of numerous dilated blood vessels with irregular shaped lumina containing blood. A diagnosis of extratesticular cavernous hemangioma was made. The sections from normal testicular area shows unremarkable seminiferous tubules showing normal spermatogenesis. Other sections show unremarkable vas deference and epididymis.

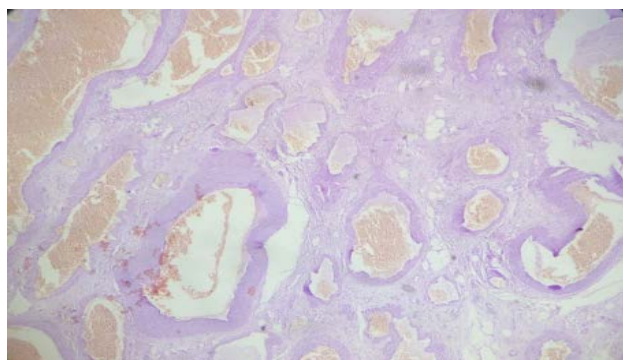


Figure-4. Low power view of the neoplasm showing numerous variable size blood vessels (H&E X 100)

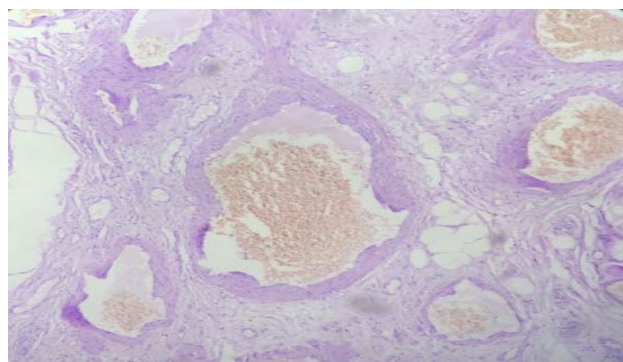


Figure-5. High power view of the neoplasm showing blood filled vessels (H&E x400)

Discussion

Vascular anomalies include a broad range of lesions which include vascular tumors and vascular malformations. Hemangiomas are the most common of vascular tumors which may not be apparent at birth⁽²⁾.

Scrotal cavernous hemangioma is a rare benign tumor. In 1944, the first case of testicular cavernous hemangioma was reported. Cavernous hemangioma is a histological type of hemangiomas which is a benign vascular tumors that can develop in any part of the body. These hemangiomas are composed of large dilated vessels with thin walls. Hemangiomas most likely arise from the inner layer of the tunica albuginea, which contains blood vessels and lymphatics and sends septa into the testicular parenchyma. A hemangioma may extend into the testicular parenchyma by way of these septa. Cavernous hemangiomas are composed of large vessels with dilated lumina and thin walls (3). Testicular hemangioma may arise either within the testicular parenchyma (intratesticular) or from the adnexal structures of the testis (extratesticular). Intratesticular haemangioma is rarer than extratesticular hemangiomas. Intratesticular hemangiomas are extremely rare tumors and mostly occur in children or young adults.⁽⁴⁾ Hemangiomas are classified as epithelioid/histiocytoid, papillary endothelial hyperplasia, cavernous, and capillary types⁽⁵⁾. The reported age of cavernous hemangioma ranges from less than 1 year to older than 70 years. Suriawinata et al. reported 20 cases of testicular hemangiomas, the age in fourteen cases was under 18 and 6 cases were adults with age between 25-73 years^(4,6). The patient usually present with a palpable mass and pain in the affected testis⁽⁷⁾. Kryvenko ON et al,

reported a case series of 8 cases of testicular hemangiomas ⁽⁸⁾. In English literature, only 22 cases of testicular hemangioma are reported ⁽⁹⁾

In case of a testicular mass, it is very important to consider hemangioma in the differential diagnosis. Frozen sections can help in this regard. If a benign lesion is confirmed intraoperatively, tumor enucleation will be performed for definitive treatment instead of a radical orchiectomy which will help preventing potential long-term effects of a radical orchiectomy, such as hypogonadism and infertility ⁽¹⁰⁾.

Conclusion

Cavernous hemangioma is an exceedingly rare tumor of the scrotum which is not diagnosed on ultrasound and the definite diagnosis is only made on histopathological examination⁽⁶⁾. Frozen section report can help in final diagnosis and normal testicular tissue can be saved by removing the benign tumor mass.

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