Indian Journal of Medical Case Reports ISSN: 2319–3832(Online)
An Open Access, Online International Journal Available at http://www.cibtech.org/jcr.htm
2014 Vol.3 (2) April-June, pp.77-80/Vaidya and Vaidya

Case Report

ADENOMATOID TUMOUR OF EPIDIDYMIS: A CASE REPORT WITH REVIEW OF LITERATURE

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ABSTRACT

Adenomatoid tumour is a rare benign tumour of the epididymis. Here we are presenting a case of 35 years old male presented with a mass in the right hemiscrotum associated with mild pain and discomfort. Orchidectomy was performed and specimen sent for pathological evaluation, which turned out to be an adenomatoid tumor of epididymis on histopathological examination.

Keywords: *Adenomatoid Tumour, Epididymis, Orchidectomy, Benign Tumour*

INTRODUCTION

Paratesticular tumours are uncommon intrascrotal tumours (Kuhn and Maclennan, 2005). Tumours of Epididymis comprise less than 5% of all intrascrotal tumours and approximately 30% of all paratesticular tumours (Moyano *et al.*, 2007; Samada *et al.*, 1996). Adenomatoid tumour is a benign tumour of mesothelial cells characterized microscopically by numerous gland-like spaces, tubules or cords (Davis *et al.*, 2004). The term "adenomatoid" was coined by Golden and Ash in 1945 to describe a solid benign tumor of the genital tract (Yazaki *et al.*, 1976). Epididydimal epithelial tumours are a subtype of paratesticular tumours with the adenomatoid tumor being most common type followed by the papillary cystadenoma and the leiomyoma (Kuhn and Maclennan, 2005).

CASES

A 35 years old male came with enlargement in the right hemiscrotum. He noticed the mass six months ago, which was gradually increasing in its size. Patient also complained of dull aching pain and discomfort in the scrotum since one week. On physical examination, a hard, painless, firm, intrascrotal mass at the pole of the testis was noticed. Ultrasonography was asked for, which showed a solid isoechoic lesion lying on the lower pole of the right testis, arising from epididymis, without any disruption of the architecture of the testicular parenchyma. Tumour markers were asked for and were negative. Diagnosis of benign paratesticular tumour was rendered based on clinico radiologivcal evaluation. The patient subsequently underwent a total right orchiectomy with epididymectomy under general anaesthesia, postoperative period was uneventful. Specimen was sent for histopathological evaluation.

Grossly the mass was well circumscribed, unencapsulated, grey white in colour, situated on the pole of testis, m/s 4x3cm replacing the epididymis and pushing the normal testicular tissue to one side [Figure 1]. Histopathological sections from the lesional tissue showed tumour cells forming solid cords as well as fine tubules with flattened lining interspersed with fibromuscular stroma. Tumour cells were having vaculated cytoplasm, without any nuclear atypia or abnormal mitosis. [Figure 2, 3] Stroma was showing focal lymphocytic aggregation. There was no evidence of dysplasia or malignancy.

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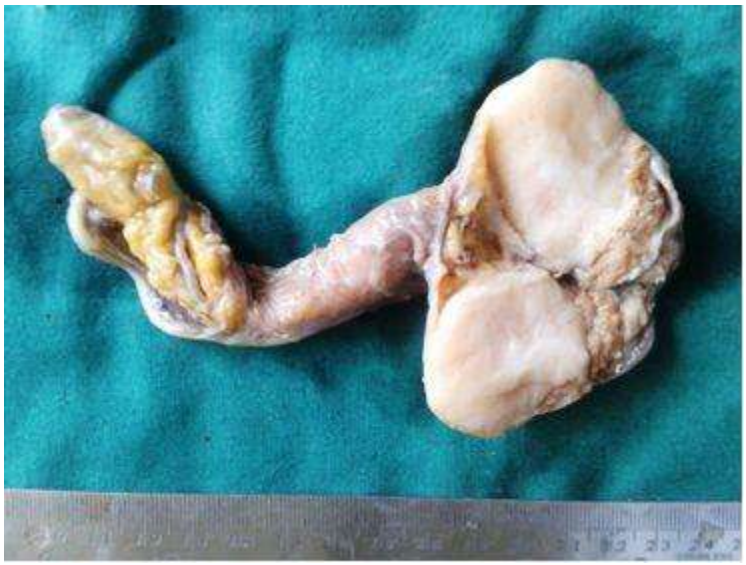

Figure 1: Cut section of the mass -showing well circumscribed, grey white lesion (m/s 4x3cm), situated on the pole of testis, compressing the testicular tissue to one side

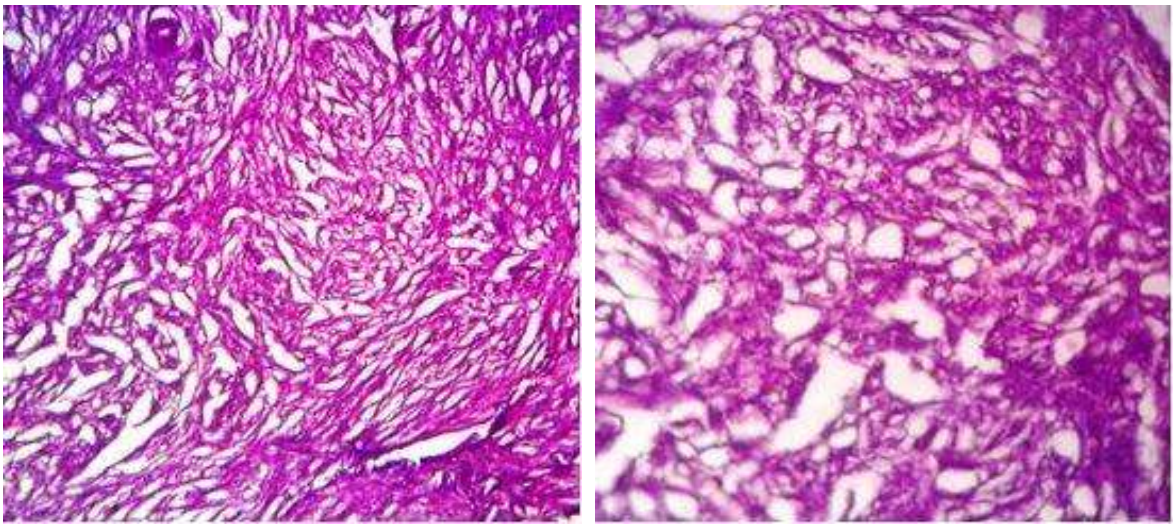

Figure 2, 3: Histopathologic section of the lesion-Tumour cells forming solid cords as well as fine tubules with flattened lining interspersed with fibromuscular stroma. Tumour cells are with vaculated cytoplasm, without any nuclear atypia or abnormal mitosis.

DISCUSSION

Adenomatoid tumour of the epididymis is a distinctive clinical entity. Comprehensive clinicopathologic approach, routine light microscopy and immunohistochemical markers are crucial for its correct diagnosis (Kontos *et al.*, 2008).

Adenomatoid tumours occur in 2nd or 3rd decade of life (Srigley and Hartwick, 1990) but may present at any age. It is usually unilateral, more common on the left side, clinically presents as small, solid, asymptomatic round discrete mass. Sometime may be associated with mild pain or discomfort as in our case but it may also present as acute emergency with pain, due to inflammation suggesting epididymitis (Paula *et al.*, 2003).

An early study indicated that this tumour was of angiomatous origin. Recent ultrastructural or histochemical analysis revealed that the adenomatoid tumour is of mesothelial origin (Sakai *et al.*, 1989).

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Four major theories of its origin have been supported by many authors, i. e. endothelial, mesonephric (wolffian), mesothelial and mullerian. Among them, the latter two theories have been advocated with more plausible evidence, however not enough for conclusive proof (Yazaki *et al.,* 1976).

Adenomatoid tumors present as a relatively small well demarked nodule, without capsule, measuring less than 2 cm in diameter. The largest diameter that has been reported is 12 cm (Klerk and Nime, 1975), in our case the tumour size was significantly large enough to produce discomfort to the patient. They are round or oval and well circumscribed although they can also be flattened and plaque-like (Davis *et al.*, 2004). These tumour are a benign, slow growing which can occur in spermatic cord, ejaculatory ducts, tunica albuginea, intratesticular location, prostate and suprarenal areas (Chen and Schiff, 1983; Fan and Johnson, 1985; Evans *et al.,* 1988; Arcadi, 1988).

Most tumours originate from the lower or upper poles of epididymis or in their vicinity. A slightly higher incidence in the lower pole has been reported (Woodward *et al.,* 2003). Microscopically three basic patterns are seen: tubules, cords, and small nests, formed of cells that are cuboidal with vacuolated cytoplasm also characterized by peripheral eosinophilic and lymphatic infiltration (Kontos *et al.,* 2008; Srigley and Hartwick, 1990).

These tumors exhibits eosinophilic mesothelial cells forming solid cords as well as dilated tubules with flattened lining cells and may initially suggest an endothelial appearance. Vacuolated cytoplasm is a prominent feature of the cells. The stroma is usually fibrous but may consist largely of smooth muscle cells (Davis *et al.,* 2004).

The differential diagnosis includes metastatic carcinoma, malignant mesothelioma, hystocytoid hemangioma, and carcinoma of the rete testis. Immunohistochemical confirmation with mesothelial-related markers (calretinin, HMBE1) is helpful in the differential with nonmeshothelial lesions (Kontos *et al.*, 2008). Adenomatoid tumors show non-reactivity for epithelial/carcinoma markers MOC-31, Ber-Ep4, CEA, B72.3, LEA 135 and Leu M1 and also factor VIII and CD34. They invariably express cytokeratin AE1/AE3 and EMA (Davis *et al.,* 2004; Nogales *et al.,* 2002).

Excision biopsy is considered both diagnostic and therapeutic procedure. Adenomatoid tumours have not been known to ever recur or show malignant changes (Schwartz *et al*., 2004).

Conclusion

Adenomatoid tumour is a rare, benign neoplasm, which can pose a diagnostic challenge. It is important for the surgeons and pathologists to be aware of this benign tumour in order to make a differential diagnosis from other malignant testicular and paratesticular tumours to adopt the proper line of treatment.

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