Case Report

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Unusual location of papillary cystadenoma of vas deferens

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ABSTRACT

Papillary cystadenomas are rare, histologically distinct lesions that occur in the region of the epididymis and spermatic cord in young adults. Because of the intimate anatomic connection of the spermatic cord with scrotum and tunica vaginalis testis, it is often impossible to decide from which of these anatomic compartments these tumours have arisen. We report a case of 24 year old male with papillary cystadenoma of vas deferens who presented to us with a painless, gradually increasing swelling in the inguinal region.

Keywords: Papillary cystadenoma, Spermatic cord, Vas deferens, Epididymis

INTRODUCTION

Papillary cystadenomas are unusual, histologically distinct lesions that occur in the region of the epididymis and spermatic cord in young adults. These lesions usually are discovered accidentally or produce minor symptoms. ¹

To the best of our knowledge, this is the fourth case report of primary cystadenoma of the spermatic cord since original report by McCluggage et al. in 1996.²

We report a case of papillary cystadenoma of vas deferens arising from right spermatic cord along with its clinical and histopathological features.

CASE REPORT

A 24 year old male presented to our outpatient department with history of painless, gradually increasing swelling in the right inguinal region for the last 6 months. There was no history of increase in size of the swelling on straining or coughing. The swelling didn't decrease in

size on lying down or on manipulation. Patient had past history of right inguinal hernia repair two years back. On examination, a 7 cm x 6 cm non-tender swelling in the right inguinal region, irreducible with no cough impulse was noticed. Bilateral testis and epididymis, and opposite inguinal region were normal.

A provisional diagnosis of encysted hydrocele of cord was made. Ultrasound study revealed a single cystic swelling of size 6 cm x 5 cm with hypoechoic content in the right spermatic cord.

Intraoperatively, a 6 cm x 5 cm cystic lesion was found in the spermatic cord attached to the vas deferens (Figure 1), the cyst was excised in toto along with a segment of vas deferens. On histopathological examination, cyst wall was found made of fibrocollagenous tissue, the cyst was lined by tall columnar cells with central nucleus. At places the lining was multilayered and dysplastic. The lining was frequently thrown into tiny papillary projections and these features were consistent with papillary cystadenoma of vas deferens (Figure 2).

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Figure 1: Intraoperative photograph showing a 6 cm x 5 cm cystic lesion in the spermatic cord attached to the vas deferens.

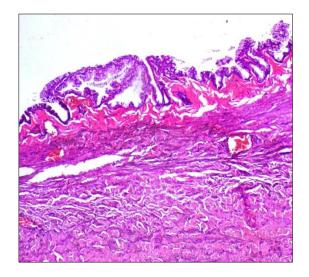


Figure 2: Section shows cyst wall made of fibrocollagenous tissue. The cyst was lined by tall columnar cells with central nucleus, at places the lining is multilayered and dysplastic. The lining was frequently thrown into tiny papillary projections (H&E, 10x).

DISCUSSION

Primary tumours of spermatic cord are rare. Furthermore, because of the intimate anatomic connection of the spermatic cord with the scrotum and the tunica vaginalis testis, it is often impossible to decide from which of these anatomic compartments these tumours have arisen. From a topographic and surgical standpoint, it would perhaps be more appropriate to simply divide them into those of the scrotum and those of inguinal canal, without attributing to particular anatomic structure.³ In our case,

the tumour was found in the inguinal region which was very well outside the scrotum.

Clear cell papillary cystadenoma, a benign epithelial tumour occurring in the head of the epididymis, is a rare lesion that has been found significantly more frequently in patients with Von Hippel Lindau (VHL) disease than in the general population. It has been reported in up to 60% of men with VHL disease. Unilateral presentation may rarely be found in the general population, whereas bilateral presentation is thought to be almost pathognomonic of VHL disease.⁴

Papillary cystadenomas generally with a diameter of 2-3 cm, are more frequently localized in the head of the epididymis but may also involve the spermatic cord⁴. Patients suffering from cystadenoma of the epididymis may present a palpable scrotal hard mass, generally asymptomatic. Bilateral disease leads to infertility, due to obstructive azoospermia.^{4,5} In our case, papillary cystadenoma arose from the right vas deferens and presented as a painless swelling.

The characteristic microscopic features of these tumour are: channels and tubules lined by a single layer of cuboidal or cylindrical, non-ciliated epithelium having clear cytoplasm and prominent cell borders; intracystic papillary growth of the epithelium on delicate, vascular, fibrous support; glycogen in the epithelium; absence of mucin; and presence of dense collagenous tissue about the papillary and tubular formations. The epithelial nuclei are uniform, generally oval, about 6 to 10 micrometer in diameter, and moderately hyperchromatic. Mitoses are rare or absent and epithelium is not multilayered. Many of the tubules and cysts contain homogeneous, digestion-resistant, PAS-positive, eosinophilic colloid, often with peripheral vacuolization. ¹

Because these lesions are often palpable, imaging is not often required. Ultrasound is the diagnostic imaging method of choice for detection of scrotal lesions. ^{6,7} Sonographic characteristics of an epididymal papillary cystadenoma range from a primarily cystic mass containing intramural solid components to a mostly solid mass with little or no cystic components. ⁸ Echogenic shadowing from closely spaced cysts or calcifications may be visible. If the mass is obstructing the rete testes, there may be ecstatic ductules. ⁴ The differential diagnosis to consider in a sonographic findings of this nature includes metastatic renal cell carcinoma, epididymal cysts, and other epididymal tumours. Although relatively rare, the most common epididymal tumours to consider are leiomyoma, adenomatiod tumours, lipoma, rhabadomyoma, lymphoma and lymphangioma. ⁸

MR imaging depicts a cystic mass with a high signal intensity on T2 - weighted images, septa and/or mural solid nodules. 9,10 The internal architecture of the lesion can be better demonstrated on gadolinium-enhanced T1-weighted imaging. The location of the papillary

cystadenoma is an important factor in differentiating it from other epididymal masses because this lesion virtually is found only in the head of epididymis but may rarely involve the spermatic cord as well.¹

Papillary cystadenoma of the epididymis and spermatic cord are benign, non-invasive lesion with no capacity for distant metastasis. Hoffman described microscopic stromal invasion but there are no reports of local recurrence or invasion of adjacent structures. The treatment of choice is local excision with sparing of the testicle.¹

CONCLUSION

Papillary cystadenoma of Spermatic cord is a rare disease. It is more commonly associated with VHL disease but may occur in general population also. The lesion is usually discovered accidentally or produces minor symptoms. It is important that the nature of these lesions be recognized clinically and pathologically in order to avoid unnecessary radical surgery. In our case, the nature of the lesion was unknown to us and a radical surgery consisting of excision of the cyst along with a segment of the vas deferens was done which was unnecessary.

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