



Cystadenoma of the *rete testis*: a case report and literature review

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■ ABSTRACT

The *rete testis* is a complex organization of interconnected ducts, situated in the upper part of the testicle, covered by a fibrous stroma and the tunica albuginea, a frequent site of benign cyst changes. On rare occasions cystadenomas or cystadenocarcinoma occur in the *rete testis*. Benign cystic lesions can be categorized as cystic dysplasia, cystic transformation, cystadenoma or simple cyst. These are part of a wide spectrum of cystic lesions of the testicle and epididymis and should be included in the differential diagnosis of said lesions. The clinical case of a 71-year-old male patient presenting with cystadenoma of the *rete testis* with spermatocele, simple epididymal cyst and testicular atrophy is presented.

Key words: *Rete testis*, Cystadenoma, Testicular cysts, Spermatocele, Epididymal cyst, Testicular atrophy.

■ RESUMEN

La rete-testis es una compleja organización de conductos interconectados, situados en la parte alta del testículo, recubiertos por un estroma fibroso que está en continuidad con la túnica albugínea, el cual es un sitio frecuente de cambios quísticos benignos. En raras instancias, cista-denomas o cistadenocarcinomas ocurren en la rete-testis. Las lesiones quísticas benignas pueden ser categorizadas como displasia quística, transformación quística, cistadenoma y quiste simple, éstas son parte de un amplio espectro de lesiones quísticas del testículo y epidídimo y deben ser incluidas en el diagnóstico diferencial de dichas lesiones. Nosotros presentamos el caso clínico de un paciente masculino de 71 años de edad, con cistadenoma de la rete-testis con espermatocelo y quiste simple del epidídimo más atrofia testicular.

Palabras clave: *rete-testis, cistadenoma, quistes testiculares, espermatocelo, quiste de epidídimo, atrofia testicular.*



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■ INTRODUCTION

The *rete testis* is a complex organization of interconnected ducts, situated in the upper part of the testicle, covered by a fibrous stroma and the tunica albuginea, a frequent site of benign cyst changes. On rare occasions cystadenomas or cystadenocarcinoma occur in the *rete testis* (1). Benign cystic lesions can be categorized as cystic dysplasia, cystic transformation, cystadenoma or simple cyst. These are part of a wide spectrum of cystic lesions of the testicle and epididymis and should be included in the differential diagnosis of said lesions (2).

■ CLINICAL CASE

We present a clinical case of a 71-year-old male patient with a medical history of high blood pressure and urolithiasis. He had undergone hemorrhoidectomy and been operated on for left hydrocele 10 years before. During evaluation for obstructive lower urinary tract symptoms, physical examination revealed the presence of a painless mass in the left scrotal pouch with positive transillumination. Scrotal ultrasound was done which reported bilateral hydrocele, septated, with predominantly left-side interior detritus and localized, heterogenous lesion in the inferior portion of the left testicle. Irrigation was not present when seen with color Doppler ultrasound. Patient underwent radical orchiectomy. The testicle weighed 107gr and there was a mass measuring 3 x 1.5 cm at its largest points (Fig. 1). The pathology report stated cystadenoma of the *rete testis* with spermatocele and simple cyst of the epididymis and testicular atrophy (Fig. 2).

■ DISCUSSION

The *rete testis* is a complex organization of interconnected ducts, situated in the upper part of the testicle, covered by a fibrous stroma and the tunica albuginea. Fifteen to twenty efferent ductules go out of the superior extreme of the testicle, entering into the head of the epididymis where they merge to form the epididymal duct (1).

The *rete testis* is divided into 3 segments: a septal part made up of tubuli recti; a mediastinal part, in which flattened canals pass around the testicular hilum and the extratesticular part in which the canals dilate and form small cavities and end in the efferent ductules.

Testicular tumors are malignant in 95% of cases. The majority of paratesticular lesions are benign (3) and usually are cystic and diagnosed as incidental findings.

Cystadenomas are rare lesions that are generally paratesticular and reflect benign epithelial hyperplasia.

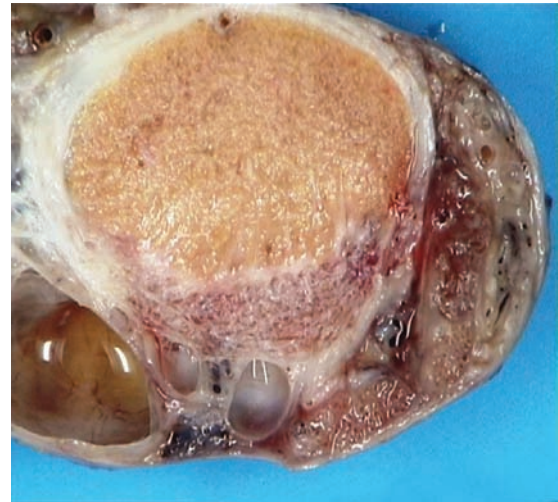


Figure 1. Surgical specimen in which the presence of cyst at the deferent body level (thin arrow) and mass in the deferent head (thick arrow) can be observed.

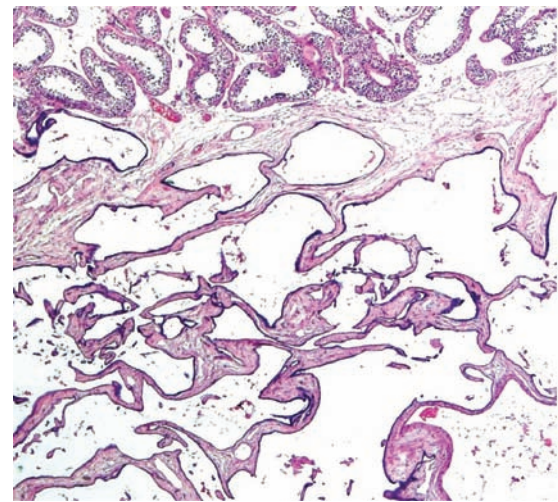


Figure 2. Histopathological cut in which a cystic structure, separated by fibrous stroma, with tubular proliferation and papillary structures, as well as insipient stratification areas, can be seen.

Their dimensions vary from 1.5 to 2cm and can be cystic or solid lesions (3). The majority of patients are asymptomatic. Cystadenomas usually present as a palpable scrotal mass in patients of different ages (2) and are usually visible and circumscribed. Histologically, they appear as a cystic structure separated by fibrous stroma and delimited by cytologically distinguished epithelium. They are characterized by tubular proliferation

and papillary structures, insipient stratification areas and occasional hairy cells with no tubular dilatation (2).

Ronald and collaborators refer to this lesion as being present in less than 5% of epididymal tumors, commonly in the second or third decade of life, as a mass in the head of the epididymis, asymptomatic and associated with Von Hippel – Lindau disease.

With ultrasonography, these lesions are imaged as cystic lesions with intramurally solid or completely solid components (3).

Because cystadenomas are rare, their rapid recognition is important so that unnecessary surgical intervention can be avoided. Ultrasound is useful because it helps differentiate benign intratesticular

lesions from malignant ones, especially when color Doppler is used (4).

Complete surgical resection of the lesion is necessary for definitive histopathological diagnosis and therefore treatment can be either surgical excision or clinical observation (1).

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