

**A RARE CASE OF SEROUS PAPILLARY CYSTADENOCARCINOMA OF THE TESTIS**

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**1 Introduction**

2 The serous papillary cystadenocarcinoma of the testis is a rare neoplasm that is practically  
3 indistinguishable from that described in the ovary. The histological classification of ovarian  
4 epithelial-type tumors of the testis considers the following types: borderline microinvasive serous  
5 tumor and serous carcinoma , intratesticular and paratesticular mucinous tumor (with different  
6 grades of severity) , clear-cell endometrioid adenocarcinoma and transitional cell tumor . Even  
7 though serous and mucinous types are the most frequently observed neoplasm, these ones are still  
8 rare. In fact, the literature reports only 40 cases of serous type and 15 cases of mucinous type(Amin  
9 2005). The histogenesis of ovarian epithelial-type tumors is likely associated with mullerian  
10 metaplasia of the tunica vaginalis or remnants of mullerian tissue at a testicular or paratesticular  
11 level .Bordeline neoplasm have been reported to occur in older patients compared to invasive ones.

12 Borderline tumors if completely ablated have a good prognosis. Invasive tumors, in turn, have a  
13 high percent of relapse and long-term metastasis (Blumberg and Hendrix 1991)

14 Herein we present a case of serous papillary cystadenocarcinoma of the testis with associated  
15 adherent mass to the tunica albuginea which compressed the parenchyma without infiltrating it.

16

## 17 **Case report**

### 18 **Clinical Features**

19

20 A 47-year-old Caucasian man was referred to our institution in order to evaluate a swollen left  
21 hemiscrotum likely consequence of a neglected and occasionally painful hydrocele lasting one  
22 and a half year. A physical examination revealed a hard and slightly tender left testicle. US scan  
23 of left testis confirmed hydrocele and showed an intratesticular solid and hypoechogenic mass,  
24 about 1 cm diameter with a central fibrotic area of 5 mm. The patient underwent blood tests and  
25 the levels of serum testicular tumor markers alpha-fetoprotein and beta-human chorionic  
26 gonadotropin were normal as was a preoperative thoracic X-ray. Explorative surgery was  
27 indicated and traditional inguinal incision was performed. After the spermatic cord was  
28 preventively clamped, the testis was exteriorized and its layers appeared thickened and more  
29 consistent. An incision of the tunica albuginea was then made just near the rete testis. Surgical  
30 exploration revealed a grayish white firm formation attached to the tunica albuginea .  
31 Intraoperative biopsy of the intratesticular mass was performed. Histopathological evaluation of  
32 frozen-section revealed a testicular papillary mesothelioma. Given the appearance of the mass,  
33 left radical orchiectomy with excision of the spermatic cord was performed.

### 34 **Pathologic Findings**

35 Macroscopically the testis was 5.5 x 3.5 x 3 cm in size and contained a solid and grayish-white  
36 mass in the upper pole measuring 3.5 x 3 cm. There was no association with the rete testis and  
37 epididymis. The margins of the tumor mass were indistinct and a strict relation to the tunica  
38 albuginea was observed. No scarring, hemorrhagic areas or necrosis were found. The mass

39 infiltrated the tunica albuginea and the testicular parenchyma in an expanding growth fashion.  
40 The histological final analysis revealed a papilliferous cystadenocarcinoma in which papillae  
41 were covered by one or more layers of cubic or columnar cells (Fig.1), partially ciliated with  
42 moderately atypic nuclei, scarce eosinophilic cytoplasm and rare mitosis. In addition,  
43 “psammoma bodies”-like calcifications (Fig.2) with PAS-positive basophilic material were  
44 present (Fig.3). Immunohistochemically, there was reactivity for cytokeratin 7 (CK-7) (Fig.4),  
45 epithelial antigen (Ber-EP4) and epithelial membrane antigen (EMA). Whereas calretinin and  
46 cytokeratin 20 (CK20) were negative. After performing Alcian-blue stain of CEA  
47 immunochemistry, the diagnosis of serous papillary cystadenocarcinoma of the testis was  
48 confirmed.

49 On the basis of the histological diagnosis the patient also underwent the following epithelial  
50 tumor markers: carcinoembryonic antigen (CAE), CA-125, and CA72-4 which were all  
51 negative. Total body CT screening was subsequently performed and evidenced the presence of  
52 suspected lymphadenopathy, ranging between 5-13 mm, at intraaortocaval and left lomboortic  
53 levels, without evidence of visceral metastasis. The patient underwent ancillary chemotherapy  
54 cycles using the same protocol considered in cases of ovary cystadenocarcinoma. He was given  
55 carboplatin AUC5 and Paclitaxel 175 mg/m<sup>2</sup>, one each 21 days por 6 cycles. Six months  
56 following the therapy , CT scan and tumor makers (CEA, alpha fetoprotein, beta HCG, CA-  
57 125, and CA72-4) were negative and performed at 3 months intervals for 2 years. At 22 months  
58 follow-up neither sign of nodal recurrences nor of distant metastases were observed.

59

### Discussion

60 The serous papillary cystadenocarcinoma is a rare testicular neoplasm which depending on the  
61 histological features, can behave more or less aggressive(Delahunt et al 1996), thus leading to  
62 unpredictable prognosis. The usual presence of hydrocele in this type of neoplasm, as is well  
63 illustrated in the literature (Guarch et al 2005 and Hass et al 1987), must always induce in case  
64 of vaginal eversion to an accurate evaluation of testicular and epididymal associated structures.

65 The histological frozen-section led initially to papillary mesothelioma that shows similar  
66 microarchitectural features of serous papillary cystadenocarcinoma (Becerra et al 2006). IHC  
67 was necessary to performed definitive diagnosis(Dupre et al 2001). Finally, long term strict  
68 follow-up of the patients is essential because this neoplasm shows a high probability of long-  
69 term metastasis.

Fig1: Papillary cystadenocarcinoma with psammoma bodies like calcifications

Fig:2 Papillary cystadenocarcinoma in wich papillae were covered by one or more layers of cubic  
or columnar cells partially ciliated

Fig3: Papillary cystadenocarcinoma with PAS positive basofilic material

Fig4: Papillary cystadenocarcinoma there was reactivity for cytokeratin 7

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