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Serous cystadenoma of the tunica testis: A case of malignancy mimicry

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ABSTRACT

Cystadenoma of the tunica of the adult male testis has rarely been reported in the literature. We report a case of an adult serous cystadenoma along with the radiological and pathological findings. The patient was a 40-year-old male with a slowly growing mass on the left testis. An ultrasound scan of left testis showed features highly suspicious for malignancy. Lactate dehydrogenase (LDH) was mildly elevated. Alpha feta-protein (AFP) and beta-human chorionic gonadotropin (beta hCG) were negative. We performed left radical orchiectomy. The pathological findings showed serous cystadenoma of the tunica of the testis. The patient remains asymptomatic.

1. Introduction

Serous cystadenoma tumor is a rare subtype of para-testicular tumors with an incidence of 5.4 cases per 100000.[1] Previously these tumors have been reported in the pancreas, retroperitoneum as well as epididymis and intra-testicular. Only one series has reported on serous cystadenoma at para-testicular sites, however, these were serous borderline tumors.[2] Moreover, as there are currently no consensus guidelines on the recommended treatment or follow-up or for these tumors, we report serous cystadenoma tumor of the testis in a 40-year-old male, which was clinically suspected to be a testicular malignancy.

2. Case report

A 40-year-old male with a painless mass of the left testis presented to the emergency room with urosepsis from a known history of urolithiasis.

On physical examination we noted a firm and painless solid mass of his left testis. A doppler ultrasound of the left testis showed a heterogeneously mild hypoechoic mass within the normal testicular parenchyma approximately 4 × 2.7 × 2.1cm with internal vascular flow. (Fig. 1). A computer tomographic (CT) scan of the abdomen and pelvis and chest X-ray did not reveal any lymphadenopathy. Tumor markers alpha-fetoprotein (AFP) and beta human chorionic gonadotropin (bhCG) were within normal ranges. Lactate dehydrogenase (LDH) was mildly elevated at 236 units per liter (U/L) (normal range 60–200 U/L). We diagnosed his scrotal mass as likely testicular tumor and obtained informed consent for left radical orchiectomy.

The cut surface of the orchiectomy specimen displayed a hemorrhagic multilocular cystic lesion separate from the epididymis and connected to the tunica albuginea. The size of the tumor was 3.1 × 3.0 × 2.6 cm and the size of the testis was 5.2 × 4.2 × 3.0 cm (Fig. 2).

Microscopically, focal ovarian-like stromal changes were present with less than 10% of the total surface area of the cyst comprised small papillary fronds. Immunohistochemistry demonstrated positive staining for WT-1, CK7, EMA, PAX 8, CD15 and estrogen receptor (ER), with negative staining for calretinin in the neoplastic cells (Fig. 3).

These pathological findings showed that the tumor was consistent with a serous cystadenoma of the tunica albuginea of the testis. The patient has no evidence of disease after 3 months of followup.

3. Discussion

Cystic neoplasms of the testis and paratestis are extremely rare. While serous cystadenoma has been rarely reported in locations that include the epididymis, to our knowledge, there have been no documented cases to date of serous cystadenoma arising specifically from the layer of the tunica albuginea. Müllerian-type epithelial neoplasms with serous differentiation demonstrate rare documentation within the

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