Actas Urológicas Españolas

www.elsevier.es/actasuro

Scientific-clinical letters

Rare case of multiple adenomatoid tumors origing from tunica vaginalis of testis and epididymis

Raro caso de tumores adenomatoides múltiples derivados de la túnica vaginal de testículo y epidídimo

Dear Editor,

Adenomatoid tumors usually present as extratesticular masses. Most of these slow-growing, small paratesticular masses can be diagnosed by physical exploration. Ultrasound can also help establish the diagnosis of this benign tumor by demonstrating the extratesticular location of the mass. Adenomatoid tumors of the epididymis are usually easily identified, though they must be differentiated from testicular parenchymal lesions[1].

A 40-year-old male reported to our Department of Urology with a painless and hard left scrotal mass that had been present for the past year. The patient reported no genitourinary alterations or surgical operations, recent traumatisms or general symptoms.

The physical examination revealed multiple paratesticular masses of small size.

Scrotal ultrasound showed three solid and well-defined hypoechoic paratesticular masses measuring 5, 6 and 10 mm, respectively, located on the anterior surface of the testicle.

All serum tumor markers (alpha-fetoprotein, human chorionic gonadotropin-beta and lactate dehydrogenase) were within normal limits.

Testicular exploration was carried out via an inguinal approach, with local excision of the paratesticular masses (fig. 1). The intraoperative analysis of frozen sections of the samples showed no evidence of malignancy. The posterior histological study confirmed the presence of benign fibrous tissue with cellular elements forming nests and solid cords, together with a moderate inflammatory infiltrate (fig. 2). The postoperative course was uneventful, and the patient has remained well to date, with no evidence of relapse after 8 months.

Testicle cancer usually presents as a palpable solid mass, though 90-95% of all palpable testicular masses correspond to benign germinal cells tumors. High-resolution ultrasound is reliable in detecting solid intratesticular masses, though it does not differentiate between benign and malignant lesions.

The management options are radical orchiectomy, diagnostic excision biopsy, and simple monitorization[2].

Paratesticular tumors are infrequent, and are mostly benign. If correctly diagnosed, they can be subjected to local removal. Adenomatoid tumors of the epididymis represent the most frequent subgroup — accounting for 60-70% of all benign neoplasms of these structures. It has been reported that inflammation may intervene in the appearance of these tumors, due to the occasional association of periorchitis and hydroceles, as well as the presence of inflammatory cells within the lesion[3]. These growths are found particularly in paratesticular tissues in males, and in the uterus and Fallopian tubes in females. Most originate from the epididymis, while

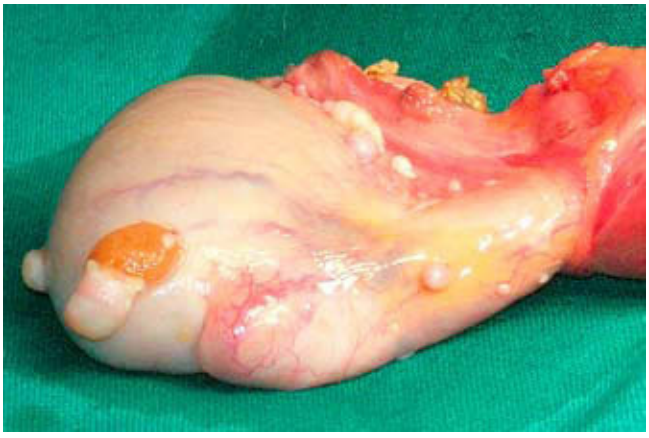

Figure 1 – Intraoperative view of multiple solid and well defined paratesticular masses located on the surface of the testicle and epididymis.

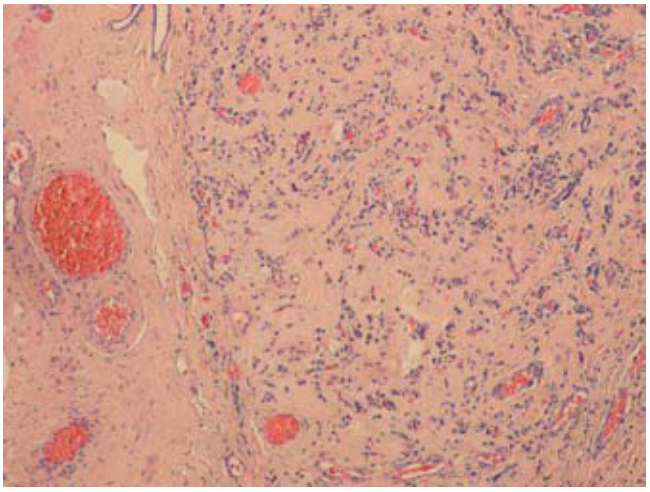

Figure 2 – Histopathological and immunohistochemical view, showing the presence of benign fibrous tissue with cellular elements forming nests and solid cords (EMA+), together with a moderate inflammatory infiltrate (x10).

lesions originating from the outer testicular layers, spermatic cord, ejaculatory ducts, prostate or adrenal zones are rare.

The origin of these tumors has been the subject of debate for years, though more recent studies based on electron microscopy and immunohistochemical techniques suggest a probable mesothelial origin[4,5].

Scrotal ultrasound is the imaging technique of choice for distinguishing between solid and cystic masses, and between extra- and intratesticular masses.

These tumors are normally white in color, and are generally of firmer consistency than seminomas, with possible considerable parenchymal involvement. In some cases, simple visual inspection is unable to distinguish the lesions from seminoma. On the other hand, seminomas may simulate adenomatoid tumors, with infrequent mitotic figures and negative serum tumor markers[6].

Nevertheless, their usual location in the epididymis, the scrotal ultrasound findings, and adenomatoid tumor immunoreactive positivity for calretinin and CK-7 are useful parameters for establishing a differential diagnosis.

Appropriate treatment requires good knowledge of the potential range of benign intrascrotal processes[7]. Unfortunately, ultrasound and serum tumor markers are not always useful for distinguishing paratesticular tumors from intratesticular lesions. In any case, when a benign lesion is suspected, the surgeon should use an inguinal approach with prompt clamping of the spermatic cord, covering of the surgical field with surgical drapes, and histological evaluation of the frozen tissue sections, instead of resorting to immediate radical orchiectomy[8,9,10].

In sum, as in our patient, we consider that whenever possible, conservative surgery is indicated in such cases.

REFERENCES

1. Evans K. Rapidly growing adenomatoid tumour extending into testicular parenchyma mimics testicular carcinoma. Urology. 2004;64:589.e12-589.e13
2. Kassis A. Testicular adenomatoid tumours: clinical and ultrasonographic characteristics. BJU International. 2000;85: 302-4.
3. Powell TM, Tarter TH. Management of nonpalpable incidental testicular masses. The Journal of Urology. 2006;176:96-9.
4. Rubenstein RA, Dogra VS, Seftel AD, Resnick MI. Benign intrasrotal lesions. The Journal of Urology. 2004;171:1765-72.
5. Amin MB. Selected other problematic testicular and paratesticular lesions: rete testis neoplasms and pseudotumors, mesothelial lesions and secondary tumours. Modern Pathology. 2005;18:S131-45.
6. Moyano Calvo JL, Giraldez Puig J, Sánchez de la Vega J, Dàvalos Casanova G, Morales Lopez A. Adenomatoid tumour of the epydidimis. Actas Urol Esp. 2007;31:417-9.
7. Stephen B, Williams A, Michael Han A, Robert Jones A, Ramez Andrawis A. Adenomatoid tumor of the testes. Urology. 2004; 63:779-81.
8. Bestard Vallejo JE, Tremps Velázquez E, Blázquez Mañá C, Celma Domenech A, De Torres Ramírez I, Morote Robles J. Adenomatoid tumor of epididymis; the most common tumour of the paratesticular structures. Actas Urol Esp. 2007;60:700-3.
9. Piers Barry, Kevin G, Chan, Joshua HSU, Marcus L, Quek. Adenomatoid tumour of the tunica albuginea. International Journal of Urology. 2005;12:516-8.
10. Carmignani L, Gadda F, Gazzano G, Nerva F, Mancini M, Ferruti M, et al. High incidence of benign testicular neoplasm diagnosed by ultrasound. J Urol. 2003;170:1783-6.

G.B. Di Pierro*, A. Sciarra, M. Innocenzi, and C. Cristini

Department of Urology «U. Bracci», Universidad Sapienza, Rome, Italy

**Author for correspondence:*
E-mail: gb.dipierro@libero.it (G.B. Di Pierro).