

CASE REPORT: AN EPIDIDYMAL ABSCESS WHICH IMITATES EPIDIDYMAL TUMOR RADIOLOGICALLY AND CLINICALLY

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ABSTRACT

Aims: Testicular and extratesticular masses can be found in scrotum. Although most of those masses are intratesticular, some develop from paratesticular tissues. In this case report, we analyzed the results of a patient admitted to the hospital complaining of a scroted mass causing pain.

Case Report: Epididymectomy was performed to a 5-year-old man patient with an expanding scrotal mass which was causing pain. After running some tests, performing initial investigations like scrotal ultrasound scan and MR, there were still doubts about the risk of malignancy. To be sure about the mass whether it is a tumor or an infection, epididymectomy was decided to be performed. The day after the operation, the patient was discharged with no complications. His complaints eased after the operation.

Conclusion: The scrotum is the sac that contains the testicles. A scrotal mass can be originated from testicles or paratesticular tissues. Although 3% of all solid extratesticular masses are malignant, previous studies have shown that the malignancy rate can raise up to 16%. That's why scrotal masses which are not certainly benign must not be ignored and epididymectomy should be performed.

Keywords: Epididym, testicular cancer, testicular tumors

INTRODUCTION

Paratesticular tumors are rare. However, they attract attention with high risks of malignancy. 30% of tumors developing from paratesticular area have malignant characteristics (1). The most seen benign paratesticular tumors are lipomas, adenomatoid tumors and leiomyomas (2). The most seen malignant paratesticular tumors are sarcomas, epididymal adenocarcinomas, malignant lymphomas and metastatic carcinomas (2). In their study, Roman Birmingham et al. (3) noticed that in 16 patients with the diagnosis of paratesticular tumor, the most frequent part was the epididymis with the rate of 50%. Epididymal cancer incidence is 0.03% of all males with cancer (4). This rate is 50 times less than the testicular cancer incidence.

Radiology has a great importance in evaluating scrotal pathologies. Ultrasonography, Doppler Ultrasonography and Magnetic Resonance are used in screening (5).

In ultrasonography, benign tumors are seen homogeneous and hyperechoic whereas malignant tumors have hypoechoic or heterogeneous characteristics (6-8).

CASE REPORT

A 51 years old man had a palpable mass on the right scrotum. During his physical examination, we palpated a 1x1 cm solid lesion on the right epididymal tail part. We did not detect any pathological sign in his right testis and contralateral testis- paratesticular area. From his medical history, we learned that mass had caused scrotal pain and had enlarged by time. There was no tuberculosis or smoking in his personal history. White blood cells and CRP levels were normal. There was no raise in AFP, BHCG and LDH levels.

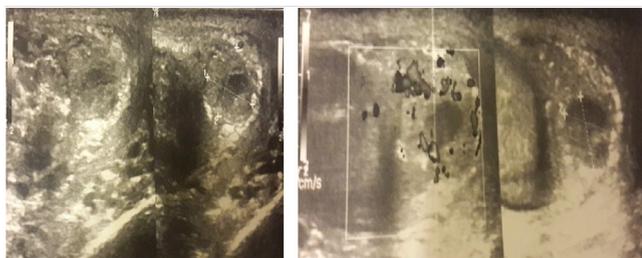


Figure 1, 2: Ultrasound images of the epididymal mass

First, scrotal ultrasonography was performed. On the right body and tail of epididymis, a solid lesion (9x10mm) was seen. In doppler USG, this mass was evaluated as well vascularized and izoechoic (Figure 1, 2). Scrotal MR imaging was not helpful in differentiating between a solid mass and infection area (Figure 3).

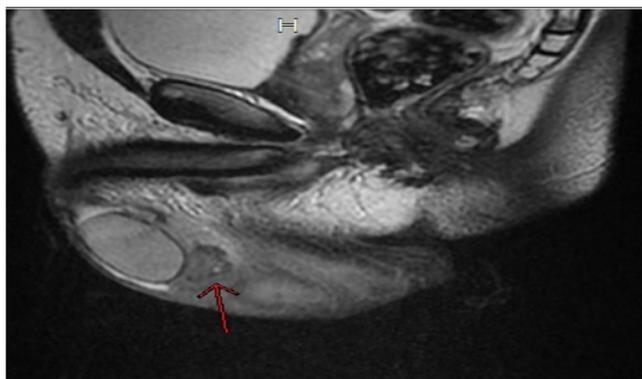


Figure 3: An epididymal lesion in scrotal MRG

We decided to perform epididymectomy on the patient with chronic scrotal pain under spinal anesthesia. Without extensive dissections between dartos muscle layer and tunica vaginalis, we were able to reach tunica vaginalis after scrotum incision. Then tunica vaginalis was cut and intravaginal structures were seen. We palpated the epididymal lesion on the tail of epididymis (Figure 4, 5). After that we attached vas deferens and cut it. We dissected vas deferens down to the vasoepididymal junction. The dissection between epididymis and testis was done correctly without causing any vascular damage and epididymis was excised. Edges of tunicas are closed together to control bleeding and operation was performed without any complications (Figure 6).

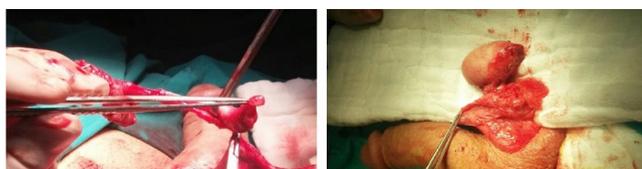


Figure 4, 5: Epididymectomy

The patient was discharged from hospital the day after the operation. No pathological symptoms were noticed on post-op 15th day follow-up. His chronic scrotal pain complaint disappeared after epididymectomy operation.

Pathology reported the mass as a chronic inflammation and an epididymal abscess (Figure 7). Immunohistochemical heterogeneity of CD3 and 20; focal positivity of CD68 was reported. Negative pancreatin pigmentation was seen.



Figure 6: Sutured tunica vaginalis after epididymal excision

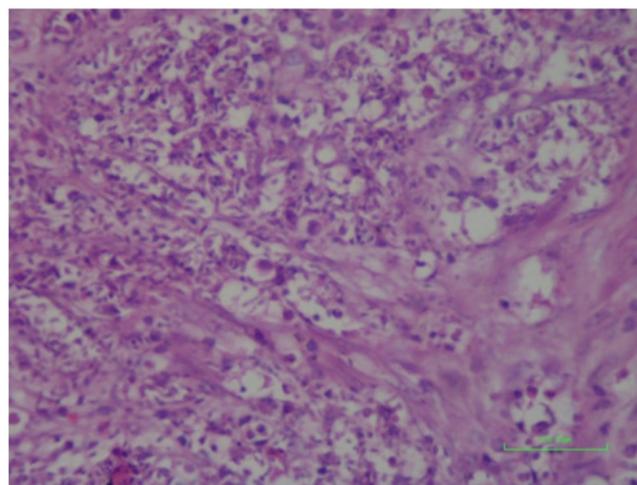


Figure 7: Sperms in inflamed cells and fibroblastic reaction are seen in H&E staining.

DISCUSSION

Paratesticular region includes spermatic cord, tunica vaginalis and epididymis. Neoplasms which originate from epididymis are generally have benign behavior. It is clinically hard to distinguish testicular tumors from paratesticular masses and this may cause misdiagnosis (9). Patients mostly complain of a scrotal

mass. This mass can be both painful and painless. There is not any preoperative specific evidence that helps us to determine malignancy, this causes difficulties for the physicians to decide a diagnosis and plan the treatment. Ultrasonography is the first imagining option to be used for scanning (10,11).

Epididymectomy was performed to the patient who had an epididymal lesion that radiologically imitates a solid mass. Operation was performed in order to exclude an epididymal cancer. Patient who had a chronic scrotal pain relieved after the operation, testicles were protected on cosmetic purposes and there were no major scrotal changes.

In conclusion, we must not ignore the masses which cannot be discriminated from malignant or benign and epididymectomy should be performed.

Ethics Committee Approval: N/A

Informed Consent: Written informed consent was obtained from the participants of this study.

Conflict of Interest: The authors declared no conflict of interest.

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REFERENCES

1. Richie J. Neoplasm of testis. In Walsh PC, Retik AB, Vaughan ED, Wein AJ eds, Campbell's Urology. Philadelphia: WB Saunders, 1998;3:2411-52.
2. Lioe T, Biggart J. Tumours of the spermatic cord and paratesticular tissue. A clinicopathological study. Br J Urol 1993;71:600-6.
3. Paola I, Javier N, Jesus G et al. Paratesticular tumors. Description of our case series through a period of 25 years. Arch Esp Urol 2012;65(6):609-15.
4. World Health Organization cancer registry report for National Institute of Cancer Research and Hospital 2005-2007 in Dhaka. Available from URL: http://nic-rhbd.org/images/Publication_Cancer_Registry_Report.pdf (December 2015).

5. Frush D, Sheldon C. Diagnostic imaging for pediatric scrotal disorders. Radiographics 1998;18:969-85.
6. Vick C, Bird K, Rosenfield A et al. Scrotal masses with uniform hyperechoic pattern. Radiology 1983;148:209-11,20.
7. Kutchera W, Bluth E, Guice S. Sonographic findings of a spermatic cord lipoma. J Ultrasound Med 1987;6:457-60.
8. Hricak H, Filly R. Sonography of the scrotum. Invest Radiol 1983;18:112-21.
9. Gao L, Song H, Mu K et al. Primary epididymis malignant triton tumor: case report and review of the literature. European Journal of Medical Research 2015;20(1):79.
10. Thinyu S, Muttarak M. Role of ultrasonography in diagnosis of scrotal disorders: a review of 110 cases. Biomedical Imaging and Intervention Journal 2009;5(1):e2.
11. Wang H, Liu L, Tian R et al. Embryonal rhabdomyosarcoma of the epididymis presenting as epididymitis: A case report. Molecular and Clinical Oncology 2016;4(4):652-7.