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EDİTÖRE MEKTUP / LETTER TO THE EDITOR

A polyorchidism case: microcalcification in accessory testis

Poliorşidizm olgusu: aksesuar testiste mikrokalsifikasyon

Ömer Koraş[1], Mehmet Erhan Aydın[2], İbrahim Halil Bozkurt[2], Özgü Aydoğdu[2], Tarık Yonguç[2], Serkan Yarımoğlu[3]

[1]Mustafakemalpasa State Hospital, Department of Urology, Bursa, Turkey
[2]İzmir Bozyaka Training and Research Hospital Department of Urology, Izmir, Turkey
[3]Iğdır State Hospital, Department of Urology, Iğdır, Turkey

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To the Editor,

Polyorchidism is a rare congenital anomaly defined by the presence of more than two testes. Approximately 200 cases have been reported in the literature[1]. The most common form of polyorchidism is triorchidism and accessory testis (AT) is usually found in the left scrotal side[2]. Blasius was first defined the case of a polyorchidism at routine autopsy in 1670[3].

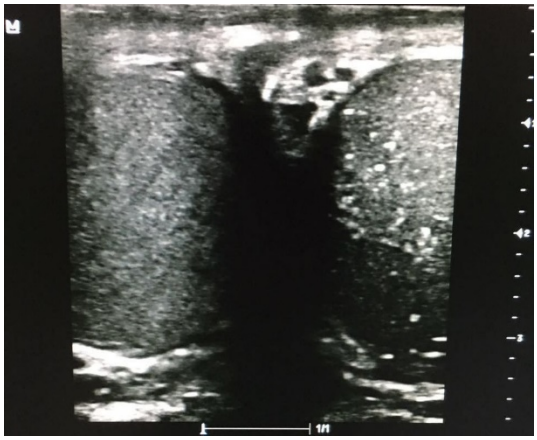

Figure 1. Multiple calcifications in left accessory testis, scrotal doppler ultrasonography

Testicular microlithiasis (TM) is seen in 0.6-9% in scrotal ultrasonography (USG) and found in testes at risk of malignant development[4]. Testicular biopsy should be recommended for malignancy detection in patients with TM. In the literature, polyorchidism with TM is very rare.

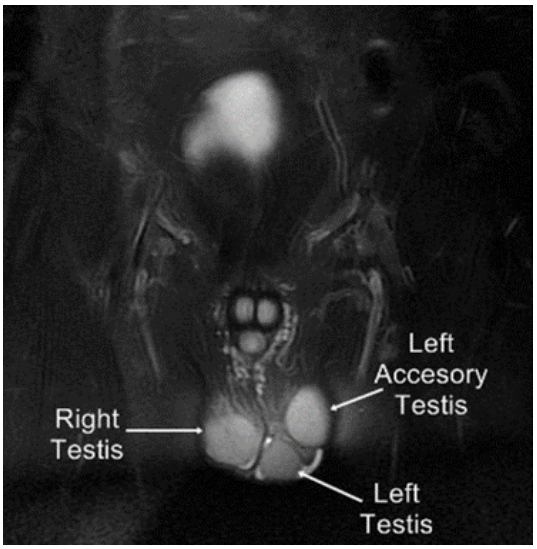

Figure 2. Accesory testis in left scrotum, MRI.

A 33-year-old married male who has three children consulted to our clinic with complaints of pain and palpable mass in the left hemiscrotum. His past medical history was uneventful. On physical examination, a normal right and left testis and a painless, mobile, oval, stiff mass measuring approximately 3x4 cm in the left hemiscrotum was palpated. The mass was separate from the left testis and was located above the left testis. The lactate

Yazışma Adresi/Address for Correspondence: Dr. Mehmet Erhan Aydın, İzmir Bozyaka Training and Research Hospital Department of Urology, Izmir/Turkey E-mail: merhanaydin@gmail.com
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dehydrogenase, alpha-fetoprotein and beta-human chorionic gonadotropin levels were normal.

Scrotal Doppler ultrasonography (USG) revealed two testes located at the superior and inferior part of the left hemiscrotum. The accessory testicular parencyhme was heterogenous and contained multiple calcifications (Figure 1), and its blood flow was reduced when compared to other two testes. There were no abnormal findings on abdominal USG. Scrotal magnetic resonance imaging (MRI) was performed and two testicles were seen in the left scrotum in dimensions of 5x4x3 cm and 4x2,7x2,6 cm. Upper testis was defined as 'AT' in left scrotum. The AT had its own epididymis; but it shared its vas deferens with the neighboring testis (Figure 2).

Because of the increased risk of malignancy due to microcalcifications in the AT, testicular biopsy/orchiectomy had recommended but the patient rejected both. The patient was closely followed up with physical examination, testicular tumor markes and scrotal Doppler USG at every 3 months. During 1-year follow-up period no additional abnormalities were detected. Informed consent was obtained.

Triorchidism is the most common form of polyorchidism involving three testes and the AT is usually found in the left scrotal pouch[2]. It has usually been described with pathologic testicular anomalies. Our patient had three testes and the AT was located in the left hemiscrotum. There were no additional anomalies detected in our case. The exact etiology of polyorchidism is still unknown.

Leung[2] classified polyorchidism on the basis of anatomical variations:

Type 1: The AT lacks an epididymis and vas deferens and has no connection to the other testes.
Type 2: The AT shares the epididymis and the vas deferens of the other testes.
Type 3: The AT has its own epididymis and shares a vas deferens.
Type 4: Complete duplication of the testis, epididymis, and vas deferens is seen.

Bergholz et al. thought that this classification had inadequacies and suggested a functional classification[5]. Based on this classification, polyorchidism is seen as two main forms: Type A and B. If the AT has its own vas deferens, it is classified as type A; this form is usually reproductively functional. If the AT is not connected to a vas deferens, it is classified as type B and thus, it is not reproductively functional. These two types also have subtypes.

Type A1: The AT has its own epididymis and vas deferens.
Type A2: The AT has its own epididymis but shares a common vas deferens with the neighboring testis.
Type A3: The AT shares a common vas deferens and epididymis with the neighboring testis.
Type A4: The AT has its own vas deferens but shares a common epididymis with the neighboring testis.
Type B1: The AT has its own epididymis, but has no vas deferens.
Type B2: The AT has no epididymis and vas deferens.

In this case, the AT has its own epididymis and shares a common vas deferens with the neighboring testis. Thus, it can be classified as type 3 based on Leung classification and type A2 based on Bergholz classification.

Bergholz evaluated 140 polyorchidism cases in a meta-analysis study and reported eight testicular malignancies (5,7%). He also reported that medical information of seven of these patients were obtained, and 88% of them had malignancy in the cryptorchid polyorchid testis[6]. Microcalcification inside the testicular parenchyma can be found in 0.6-9% in scrotal ultrasonography (USG) and TM is found in testes at risk of malignant development[4]. Our patient had AT with microcalcification, which was incidentally found in this case and is likely without relation to polyorchidism. There are some cases in the literature that are associated with polyorchidism and microlithiasis. In the current case, the patient had the risk of malignancy in the AT especially including microcalcifications. The patient rejected both orchiectomy and testicular biopsy. The patient was closely followed up with physical examination, testicular tumor markes and scrotal Doppler USG at every 3 months. During 1-year follow-up period no additional abnormalities were detected. Informed consent was obtained from the patient for the publication of this case report.

Polyorchidism has the risk of increased malignancy especially in case of microcalcification. So, accessory testes with microcalcification should be biopsied or surgically removed. If the patient does not accept both, close follow-up with physical examination,

markers and imaging modalities should be recommended.

Acknowledgement

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