Scrotal Abscess Mimicking as Infarcted Testicular Abscess in a Patient with Maldescended Testis

Darren Goh1*

1Department of Urology, Changi General Hospital, 2 Simei Street 3, 529889, Singapore.

Author’s contribution

Author DG conceptualized the study and prepared the draft and did literature search and prepared the final manuscript. Author read and approved the final manuscript.

Article Information

Editor(s):
(1) Dr. Muhammad Ujudud Musa, Federal Medical Centre, Katsina, Nigeria.

Reviewers:
(1) Antonio Augusto Ornellas, Instituto Nacional de Câncer, Brazil.
(2) Asaad Ahmed Ghanem, Mansoura University, Egypt.

Complete Peer review History: http://www.sdiarticle4.com/review-history/56653

Received 24 February 2020
Accepted 30 April 2020
Published 07 May 2020

ABSTRACT

Scrotal abscess is a common scrotal condition which rarely affects the testis and definitive treatment is by surgical drainage. Testicular involvement by a scrotal abscess can usually be diagnosed with ultrasound and it will usually require an orchidectomy. We present a first reported case of a scrotal abscess, mimicking an infarcted testicular abscess on ultrasound in a patient with maldescended testis. This unusual case highlights the importance of an accurate history and physical examination as imaging may not be reliable in a case of maldescended testis.

Keywords: Scrotal abscess; testicular abscess; maldescended testis.

1. INTRODUCTION

Scrotal abscess is a common scrotal condition which rarely affects the testis and definitive treatment is by surgical drainage. Testicular involvement by a scrotal abscess can usually be diagnosed with ultrasound and it will usually require an orchidectomy. We present a first reported case of a scrotal abscess, mimicking an infarcted testicular abscess on ultrasound in a patient with maldescended testis, and this unusual case highlights the importance of an

*Corresponding author: Email: Darren.goh.w.y@singhealth.com.sg;
accurate history and physical examination, as imaging may be unreliable in a case of maldescended testis.

2. PRESENTATION OF CASE

This is a 67 years-old Indian male, with a significant past medical history of hypertension, hyperlipidemia, diabetes mellitus, ischemic heart disease and end stage renal failure on hemodialysis, who first presented with a left scrotal swelling of 1 week’s duration. The swelling was increasing in size and was associated with pain and erythema. On physical examination, there was a 4cm swelling over the inferior aspect of the left hemi-scrotum which was fluctuant and tender, and a separate left testis was not clinically palpable. The right testis was palpable and normal. In view of the clinical concern of possible involvement of the left testis, an ultrasound examination of the scrotum was performed. Ultrasound examination noted a 4 cm heterogenous mass within the left scrotal sac, which was reported to represent the left testis and epididymis, but no vascular flow was demonstrated (Figs. 1,2,3). This was deemed to be suspicious for left testicular infarction complicated by necrosis or hemorrhage.

Fig. 1. Longitudinal ultrasound image showing the heterogenous ‘left testis’

On further questioning, the patient reported that he noticed his left testis was smaller than his right. However, the patient was not specifically asked if his testis was normally descended in the scrotal sac, and the patient did not volunteer the information that his left testis was not in the scrotum.

The patient was planned for saucerisation of the scrotal abscess with a view for left orchidectomy in view of the physical and ultrasonographic findings. During surgical exploration via a midline scrotal incision, the entire abscess was saucerised but no obvious testicular tissue or spermatic cord was identified. On further exploration, there was an atrophic, maldesended testis located high up in the left scrotal sac, around the sub-inguinal region. The left maldesended testis appeared atrophic but was otherwise not involved by the abscess and was not removed. The patient’s post-operative recovery was uneventful, and he recovered well after the surgery. Post-operative examination in the clinic was able to vaguely demonstrate an atrophic testis in the sub-inguinal region, which was not noted in the pre-operative assessment. The histology returned as inflamed epidermal inclusion cyst with evidence of recent rupture.

3. DISCUSSION

Scrotal abscesses are common scrotal conditions that are usually drained surgically. Pre-operatively, it is important to exclude testicular involvement as this may necessitate an orchidectomy, which will be an important consideration in the younger age group. Testicular abscess or testicular involvement from a scrotal abscess is rarely seen and this can usually be easily diagnosed with ultrasound examination of the testes [1,2]. Severe epididymo-orchitis have been reported to result in abscess formation and even testicular necrosis, and this will necessitate an orchidectomy.

The diagnosis of a scrotal abscess is usually straight forward and usually made clinically, with the occasional need for further imaging in suspected cases of testicular involvement or concern of a neoplasm [3,4,5]. Rarely a scrotal abscess may mimic other conditions, and there have been a few case reports of scrotal abscess mimicking as intratesticular liposarcoma, or testicular torsion in the literature, but to our knowledge, this is the first reported case of a scrotal abscess masquerading as a testicular abscess in a patient with a maldesended testis [6,7,8,9]. The use of ultrasonography in assessment of the undescended testis has been studied and has in general found to be inferior as compared to surgical exploration.
We report an interesting case of a patient with a maldescended atrophic left testis presenting with a left scrotal swelling which was initially treated as for an infarcted testicular abscess based on the clinical and imaging findings. Without a clinical history of a maldescended left testis and the inability to reliably palpate the atrophic testis high up in the left scrotal sac, the ultrasound finding of a 4cm heterogeneous scrotal mass without vascular flow mimicked the appearance of an infarcted testicular abscess. This resulted in a surgical plan for an orchidectomy which would have been unnecessary as the testis was not involved at all. While a concerted effort was made in the history taking regarding his left testis, the patient was unable to inform that he in fact had a maldescended and atrophic left testis. It is important to highlight that while the initial diagnosis was incorrect, the management was appropriate as this patient clinically had an abscess that required surgical drainage, and fortunately we were able to identify the maldescended testis intra-operatively. If the patient had been able to give an accurate history of an undescended left testis, or if physical examination was able to identify the maldescended testis in the upper scrotum, the patient might have been able to proceed with the operation directly, without the need for further imaging studies. While this interesting case did not impact on the patient’s eventual surgical management and outcome, this case does

Fig. 2. Doppler ultrasound image showing the absence of vascular flow within the ‘left testis’

Fig. 3. Side by side comparison of the right and ‘left testis’
highlight the importance of accurate history taking and thorough physical examination. It also serves to remind clinicians the importance of clinical correlation with respect to imaging findings.

4. CONCLUSION

The ultrasonographic appearance of a scrotal abscess may be deceiving as it may mimic the appearance of a testis, as highlighted in this case where the testis is maldescended and not in the expected location within the scrotal sac. This unusual case illustrates the importance of a good history and physical examination, and imaging alone without proper clinical correlation may not reliably give the correct diagnosis and may result in inappropriate decision making and management.

FUNDING

This research did not receive any grant from funding agencies in the public, commercial, or not-for-profit sectors.

CONSENT

All authors declare that written informed consent was obtained from the patient (or other approved parties) for publication of this case report and accompanying images.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES


© 2020 Goh; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.