Case 6477

Acute Idiopathic Scrotal Edema
Published on 19.03.2008

DOI: 10.1594/EURORAD/CASE.6477
ISSN: 1563-4086
Section: Paediatric radiology
Case Type: Clinical Cases
Authors: Tietze, A. Avula, S.
Patient: 8 years, male

Clinical History:

Sudden onset of right sided scrotal swelling and erythema. Four months later the same symptoms on the left side of the scrotum.

Imaging Findings:

An eight-year-old boy presented with a sudden onset of acute right sided scrotal swelling and erythema. He was only slightly tender but walking clearly aggravated the problems. There was no history of trauma. He was otherwise a healthy boy except for a previous history of severe allergies and was supplied with an EpiPen. In order to rule out a testicular torsion an ultrasound study was performed which revealed normal vascular flow within both testes. There was a striking edema of the scrotal skin and thickening of the tunica on the right side. Doppler showed increased vascularity in the scrotal wall. Both testes and epididymides were echogenically normal, no hydrocele was demonstrated. Acute Idiopathic Scrotal Edema (AISE) was suggested and he was treated with Paracetamol. The symptoms resolved within a few days. Four months later he presented with the same symptoms, this time on the left side. Ultrasound study again showed marked subcutaneous edema on the left side with small fluid pockets and increased vascular flow. There was no evidence of an abscess. The scrotal layers were again thickened but both the testes and the epididymides were normal. AISE was once again considered as diagnosis. He was treated with Paracetamol, antihistamines and activity restriction. He recovered fully after a few days.

Discussion:

We present a typical case of recurrent AISE in an eight-year old boy with a previous atopic history [1; 2; 5]. AISE is probably not uncommon in boys under 11 years and is likely to be underdiagnosed [1]. Many acute pathologies can cause scrotal swelling and erythema, hence the differential diagnoses are broad. The previous history of allergies in our case combined with the absence of severe pain and fever should direct the attention to AISE. The diagnosis is based on the localisation of the inflammatory changes which are typically confined to the scrotal wall. This may be difficult to diagnose clinically but is easy to recognize with ultrasound. The scrotal integument and the tunica appear thickened and oedematous and increased vascularity is demonstrated with Doppler [3]. Usually the testes and epididymides are not affected. The rapid recovery with only symptomatic treatment confirmed the diagnosis of AISE. We consider ultrasound with Doppler an important tool in diagnosing this benign condition and to rule out the differential diagnoses. Surgical explorations may be avoided but must, of course, be performed if torsion of the testis can not be entirely excluded.

Differential Diagnosis List: Acute Idiopathic Scrotal Edema

Final Diagnosis: Acute Idiopathic Scrotal Edema
References:

Figure 3

Description: Origin:
Figure 4

Description: Origin: