



A Case of Acute Suprascrotal Vasitis

Matthew Megson*, Adam Jones and Sid Singh

Department of Urology, George Eliot Hospital, UK

Abstract

A 35-year-old man presented with an acute, painful lower left quadrant and groin mass with signs of sepsis. On examination, it was difficult to tell whether this was a strangulated hernia or collection. Biochemical investigations revealed raised inflammatory markers and radiological investigations showed a rare inflammatory condition, acute suprascrotal vasitis, which is mistaken for various other 'surgical' groin masses.

This case report summarizes the importance of realizing this differential diagnosis for an acute groin masses and how imaging can prevent unnecessary surgery.

Case Presentation

This 35 year old gentleman presented to A & E on the 27th of April, 2017 with a 5/7 day history of left lower quadrant pain which was constant in nature, increasing in intensity, and worsened by movement. There was no association with eating or opening bowels, he had no lower urinary tract symptoms, though he did show signs of sepsis. He had experienced rectal bleeding in the evening for the preceding week, and night sweats. He had a recent diagnosis of IBD (Inflammatory Bowel Disease) and IDDM (Insulin Dependent Diabetes Mellitus). He developed a swelling in his left groin, which was not reducible and had mild skin changes overlaying this. On examination, there were no scrotal signs of epididymitis, he was tender left lower quadrant and over his left inguinal canal. An USS (Ultrasound Scan) showed a no hernia, but inflammation within his inguinal canal. He was put on ciprofloxacin to cover possible epididymitis. Despite this he did not improve over the next week, so a CT abdomen/pelvis was done (Figure 1), showing a collection and inflamed vas from inguinal canal to seminal vesicles.

He was changed to IV Meropenem for 72 hours, then stepped down to a higher dose of oral ciprofloxacin. His collection was drained using US guided aspiration. This gentleman was discharged home, and had his US guided aspiration of his collection as an outpatient procedure (Figure 2).

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*Correspondence:

Matthew Megson, Department of Urology, George Eliot Hospital, College Street, Nuneaton, CV10 7DJ, UK, E-mail: matthew.megson@nhs.net

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Investigations

USS-both testes and epididymi are symmetrical in size shape and echogenicity as well as color Doppler imaging. There is a small amount of left sided hydrocele and varicocele. There is diffuse thickening and enlargement of the left inguinal canal with mild increased vascularity within it. I suspect this represents an inflamed spermatic cord.

CT (Figure 1)-normal liver, spleen, pancreas and both adrenals and both kidneys are normal calibre of the aorta, no paraaortic lymphadenopathy. Faecal residue is seen round the colon. The rest of the abdomen and pelvis is unremarkable. In the left groin region extending to the scrotum there is a localized fluid collection seen which measures approximately 5.9 cm × 3.2 cm in size. The exact nature of this collection is not clear? Cyst around the spermatic cord/? Localized abscess, USS (Figure 2)-there is a dense-fluid-collection measures approx 1.7 cm × 2.8 cm × 4.8 cm situated medially and dorsally to the spermatic cord in the upper inguinal canal. There are few tiny septation inside this collection.

Differential Diagnosis

Originally he was diagnosed with acute exacerbation of his IBD, as he was admitted with PR bleeding, high white cell count, and left lower quadrant pain. Due to the swelling in his groin he was then diagnosed to have a hernia which was excluded on the USS. Due to the swelling in his groin and the suspicion of the sonographer that he had an inflamed spermatic cord within his inguinal canal he was diagnosed with epididymo-orchitis, though due to the lack of scrotal signs this was ruled out. The CT scan was done to investigate if there was an intra-abdominal cause for his inguinal inflammation, though this proved acute suprascrotal vasitis.



Figure 1: This is a CT axial view through this patients' pelvis. This shows the inflamed left vas originating from the inguinal canal.

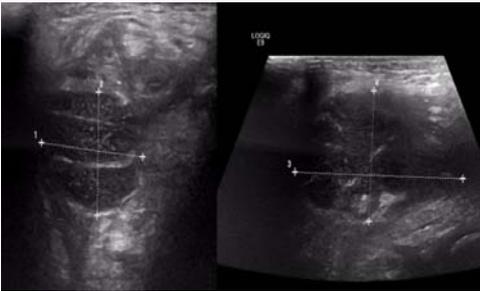


Figure 2: This is an USS of the collection in this patients' left groin.

Discussion

The condition was first described in 1795 by Benjamin Bell [1]. It has often been confused with epididymitis, orchitis, testicular torsion, or inguinal hernia, with the correct diagnosis usually being made at the time of surgery [2], this surgery being unnecessary. On USS acute vasitis usually presents with infection combined with acute epididymitis, and it usually appears as a heterogeneously hypoechoic lesion in the scrotal segment, suprascrotal segment, or both [3]. Most of the literature denotes patients who have scrotal signs or have epididymitis as well as vasitis [4-9]. Whereas our patient had very minimal scrotal signs, which made the diagnosis more challenging to come to.

The Pathogens are similar to those of epididymitis and are usually not isolated in the urine. For those patients less than age 40 years of age it could be an STI pathogen (*Chlamydia*, *N gonorrhoea*) [10], or a UTI pathogen (*Escheria coli*, *Haemophilus influenzae*) [11]. For those patients over the age of 40 it is more likely to be UTI pathogens. Rare pathogens also described in case reports include *Mycobacterium tuberculosis* and *Schistosoma haematobium* [12,13].

In summary, this is a case of a rare condition which is often misdiagnosed. There is often confusion over the diagnosis which may

result in unnecessary surgery. However, this is a condition which can be treated medically with antibiotics and therefore clarification of the diagnosis is essential. This is a diagnosis which should be thought of as a possibility for those patients presenting with an acute groin mass.

Learning Points

1. There are many differential diagnoses for an acute groin mass, some of which do need urgent surgical intervention, others it's inappropriate to operate on.
2. If the patient does not improving during treatment for your working diagnosis then there is a need to re-evaluate the diagnosis.
3. This is likely an under reported diagnosis and therefore it should form part of your differential diagnosis of an acute groin mass.
4. A good sonographer/radiologist may be able to distinguish this on USS, however if not then a CT may be warranted.

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