

# An Unusual Presentation of Acute Scrotum after Appendicitis

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## ABSTRACT

Acute scrotum following perforated appendicitis is a rare complication. This usually occurs in the presence of a patent processus vaginalis in children. We report a case of acute scrotum presenting after appendectomy for perforated appendicitis in a young adult.

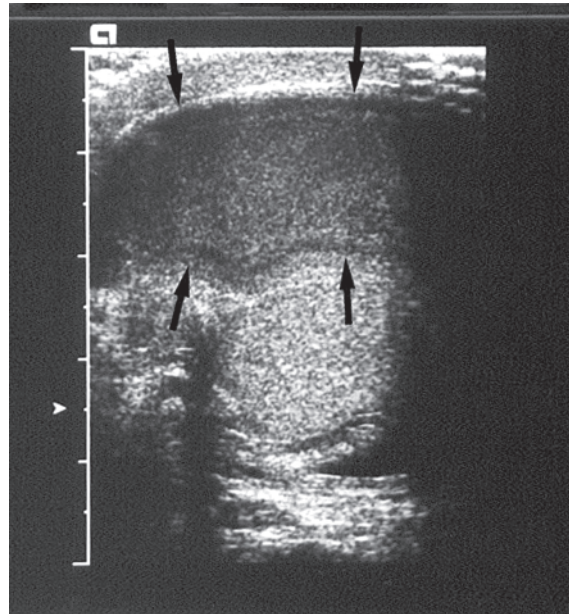
**Keywords:** acute scrotum, scrotal abscess, appendicitis

Singapore Med J 2002 Vol 43(7):365-366

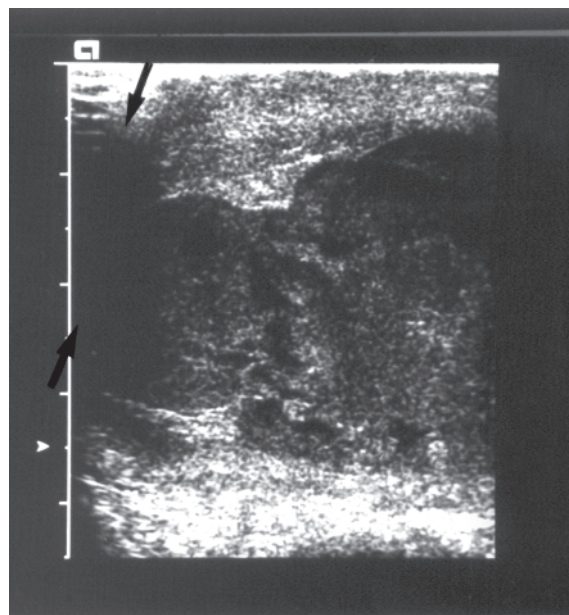
## CASE REPORT

A 25-year-old man with no past medical history, had an appendectomy done for perforated appendicitis. There was small amount of peritoneal soilage noted during the operation and the abdomen was swabbed till clean before closing up. Prophylactic antibiotics was given at induction and continued after the operation. Postoperatively, the patient was recovering well except for a low grade pyrexia of about 37.4°C. However, the patient decided to discharge himself against medical advice on the third post-op day and went home with oral antibiotics.

He presented five days later with an acute right hemiscrotum that was swollen, red and tender. The right testicle was not felt. The left testis and hemiscrotum were normal. He had a temperature of 37.4°C and the abdomen was soft and not tender. Total white cells count was about 15,000 x 10<sup>9</sup>/L. Urgent ultrasound was performed. There was no testicular torsion, but echogenic fluid-filled right scrotum (Fig. 1) and a patent processus vaginalis (Fig. 2) was noted. Twenty-five ml of turbid fluid was aspirated with ultrasound guidance. CT scan of the abdomen and pelvis done showed a retrovesical collection tracking toward the right inguinal canal (Fig. 3 and 4). In view of this, a laparotomy was done. Intra-operatively, there was a fair amount of turbid fluid in the pelvis, the appendix stump was intact. During the exploration of the right scrotum, besides pus found, a patent processus vaginalis was found communicating directly with the abdominal cavity. Drainage of the abdominal and right



**Fig. 1** Ultrasound of the right scrotum showing echogenic fluid (arrows) in the scrotal sac.



**Fig. 2** Ultrasound of the right inguinal region showing the patent processus vaginalis.

scrotal collection was performed. Cultures taken from the pelvis and scrotum grew *Pseudomonas aeruginosus* and *Proteus mirabilis* respectively.

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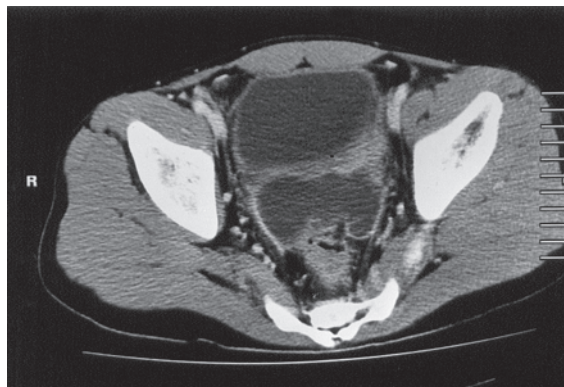
The patient recovered well after a course of antibiotics and went home one week later.

## DISCUSSION

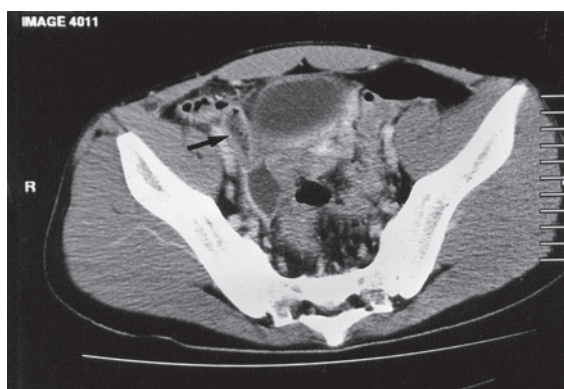
The occurrence of intra-abdominal abscesses after perforated appendicitis is common. However, the incidence has declined drastically over the years. This has been attributed to the use of antibiotics<sup>(1)</sup>. Extra-abdominal abscesses are rare. Inguino-scrotal suppuration presenting as acute scrotum after perforated appendicitis is an unusual form of extra-abdominal abscess<sup>(2)</sup>. This usually occurs in the presence of a patent processus vaginalis and an indirect inguinal hernia in children. Very few cases of this complication have been reported.

In the setting of a perforated appendicitis, acute scrotum can be the presenting complaint of the patient or occur few days after an appendectomy has been done. Recently, there are also reports of acute scrotum after laparoscopic appendectomy for perforated appendicitis<sup>(3)</sup>. This phenomenon has been attributed to pneumoperitoneum causing increase in intra-abdominal pressure, which allows pus in the abdomen to be decompressed into the scrotum through a patent communication. When acute scrotum is the initial presentation, diagnosis can be difficult. The common differential diagnosis of acute scrotum like testicular torsion and epididymo-orchitis are usually considered. These two conditions can have very similar presentation. Testicular torsion required emergency surgery, whereas epididymo-orchitis is treated with antibiotics. Acute appendicitis presenting as acute scrotum can be mistakenly diagnosed as epididymo-orchitis with grave consequences.

Early diagnosis is important as scrotal abscess can result in vascular thrombosis and subsequent testicular loss<sup>(4)</sup>. If diagnosis is in doubt, investigations like ultrasound or CT scan should be performed promptly. These can demonstrate the presence of



**Fig. 3** CT scan of the pelvis showing retrovesical fluid collection.



**Fig. 4** CT scan of the pelvis showing fluid tracking down the right patent processus vaginalis (arrow).

scrotal abscess communicating with the abdomen through a patent processus vaginalis. Treatment will entail urgent drainage of both scrotal and abdominal abscesses, together with a course of antibiotics.

## REFERENCES

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