

# Ultrasound in the acute scrotum: the truth and the false

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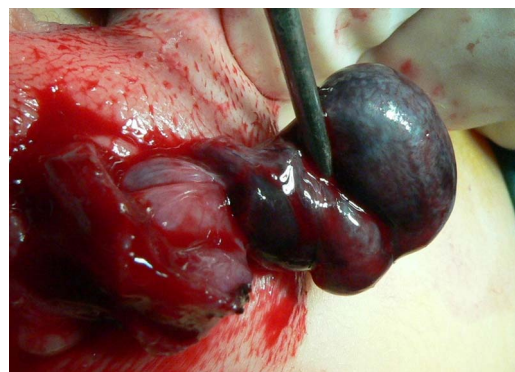
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## DESCRIPTION

A 16-year-old boy was admitted to our emergency department (ED) with a 6-day history of left scrotal swelling associated with pain progressively worsening. About 6 days previously he had a scrotal trauma that occurred during a football match (blow with a ball) leading to left scrotal swelling and local pain that spontaneously disappeared after half an hour but reappeared the day after. His physician suggested oral administration of antibiotic (amoxicillin), non-steroidal anti-inflammatory drugs and local ice application. Because of worsening of pain and swelling the patient was admitted to our ED. Upon physical examination he presented an enlarged and painful left scrotum. Ultrasound examination showed a parenchymal fracture of the testis without blood flow at colour Doppler evaluation (figure 1), but surgical exploration revealed spermatic cord torsion with no signs of parenchymal rupture (figure 2). Left orchiectomy was carried out. Six months after the procedure the patient underwent a placement of left testicular prosthesis. Torsion of the testis is the most common urological emergency and should be included in the differential diagnosis of scrotal trauma.<sup>1</sup> Clinical suspicion of testicular torsion is a serious indication for prompt surgical exploration of post-traumatic acute scrotum. Scrotal trauma is commonly associated with severe injuries to the scrotal contents including haematoma, fracture or rupture of the testicle and peritesticular structures.<sup>2</sup> Reliance on the history and physical examination alone is hazardous and the inaccuracy of those elements has been well documented now for decades. Sensitivity of ultrasound for diagnosing testicular



**Figure 2** Intraoperative picture showing left testicular torsion without signs of fractures.

rupture reaches 100%, discontinuity of tunica albuginea, contour abnormality and heterogeneous echotexture are the signs of testicular rupture.

Concurrently, although the accuracy of imaging is quite good, it is also well documented to have a degree of error and inaccuracy.<sup>3</sup>

## Learning points

- ▶ Torsion of the testis is the most common urological emergency and should be included in the differential diagnosis of scrotal trauma.
- ▶ Ultrasound imaging in the case of acute scrotum have a degree of error and inaccuracy.
- ▶ Suspicion of testicular torsion would be considered in case of post-traumatic acute scrotum leading to prompt surgical exploration.

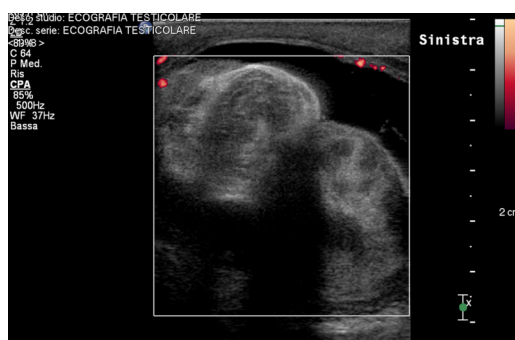
**Competing interests** None.

**Patient consent** Obtained.

**Provenance and peer review** Not commissioned; externally peer reviewed.

## REFERENCES

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**Figure 1** Testicular ultrasound showing a parenchymal fracture of the left testis.

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