Bilateral synchronous testicular torsion in a young adult

Introduction

A rare case of simultaneous bilateral testicular torsion in an 18-year-old adult is reported. Although an acute scrotal emergency of unilateral testicular torsion is not uncommon, bilateral synchronous torsion is rare. In this case the importance of recurrent testicular pain is stressed and the limitations of ultrasonography in the acute scrotum are highlighted.

Discussion

The incidence of torsion in the general population is much less than 10%. Its prevalence in bell-clapper deformity is 12% and 80% of these patients have bilateral bell-clapper deformity (Caesar and George, 1994). Lee and Chu (2002) and Olguner et al (2000) have shown that bilateral torsion of the spermatic cord can occur asynchronously as well as simultaneously. This stresses the importance of visualizing and fixing the contralateral testis and spermatic cord directly, otherwise the diagnosis of simultaneous torsion can be missed.

Abeshouse reported 24 cases of simultaneous bilateral testicular torsion in a review of 350 cases in 1936, sixteen of which were intra-abdominal. Moulder (1945) reported a case in a 19-year-old, Frederick et al (1967) reported two neonatal cases and both Weingarten et al (1990) and Ishibashi et al (2003) reported single cases in neonates. Ameh et al (2003) reported the fourth case of scrotoschisis and bilateral extracorporeal testicular torsion, also in a neonate.

Pre-pubertal torsion does not seem to affect fertility, which is directly related to the duration of torsion and if an ischaemic testes is retained in the scrotum after untwisting. According to Bartsch et al (1980), who conducted studies in experimental models, spermatogenesis ceases after 6 hours of ischaemia and endocrine function stops after 10 hours. During follow-up hormonal profiles and semen analysis should be checked in these patients.

Anderson and Williamson's (1988) study of 670 patients between 1960 and 1985 showed that in torsion of less than 12 hours' duration, 4% of testes are necrotic and if greater than 12 hours, 75% are necrotic.

Urgent bilateral orchidopexy should be performed in patients when there is a history of intermittent testicular pain, as 36% will present with recurrent pain. Radionucleotide scrotal imaging and colour flow Doppler sonography are valuable tools depending on availability of expertise and equipment (Saxby, 1996; Monga et al, 1999).

Case Report

An 18-year-old man presented to accident and emergency with acute left testicular pain of 2 hours' duration. He woke up with the pain radiating to his left hemiscrotum, left groin, left iliac fossa and left lumbar flank. Nausea and vomiting accompanied the pain. He had not opened his bowels for 48 hours. He denied any lower urinary tract symptoms or any previous history of genital trauma.

His past medical history revealed that he had suffered from intermittent left testicular pain for 3 years and, 6 months before this admission, had been admitted with a similar episode of left testicular pain, which was treated as epididymitis. There was no family history of testicular torsion.

On examination, he was apyrexial, distressed with pain and retching. His left scrotum was erythematous and mildly oedematous, lying relatively high. It was extremely tender at the upper pole, which made evaluation of its contents difficult, but a 'knot-like' structure was palpated. Cremaster reflexes were absent bilaterally. The right testis was also tender, but on palpation it felt normal and was not swollen. The left inguinal canal and left iliac fossa were also painful.

A midstream urine showed no pyuria or haematuria. A kidney-urinary bladder radiograph showed faecal loading of the large bowel. Transverse testicular ultrasound scanning showed a markedly inflamed left epididymis with decreased blood flow. The left distal spermatic cord showed a whorled appearance. The right testis was normal in echotexture, size and blood flow. Bilateral hydroceles were noted.

The patient underwent immediate bilateral scrotal exploration, which revealed the left testis to be cyanosed and the cord to be twisted 540° anticlockwise. The right testis was normal in colour and the cord was twisted 360° clockwise. Bilateral bell-clapper deformity was noted. Detorsion, orchidopexy and drainage of serous-coloured hydrocele was performed bilaterally.

Postoperatively the patient recovered well and was discharged home 2 days later with an outpatient follow-up appointment. Serum sex hormone levels were all within the normal ranges. Semen analysis was of normal consistency and pH. The count was 38 million, but 54% were immotile and 87% displayed abnormal morphology.

Conclusions

If the clinical suspicion of a testicular torsion is high then immediate exploration of the scrotum and of both testes is mandatory. BJHM

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