No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

References

OBTURATOR DISLOCATION OF THE HIP

A. D. Toms, S. Williams, S. H. White
From the Royal Shrewsbury Hospital, Shrewsbury, England

We describe two patients with obturator dislocation of the hip which was irreducible by described techniques of closed reduction. The first required open reduction using the iliofemoral approach with release of rectus femoris. The second was treated on a traction table which allowed disengagement of the head and, when combined with simultaneous lateral traction, adduction and gradual release of the longitudinal traction, facilitated a smooth reduction. Since the hip is stable in flexion, early mobilisation in an extension-limiting brace avoids the prolonged bed rest traditionally recommended for this injury.

Received 17 June 1999; Accepted 25 September 1999

Case report

**Case 1.** A 24-year-old man was admitted after a motorcycle accident with his right hip in 30° of abduction, 10° of flexion and externally rotated. Radiographs confirmed an obturator dislocation (Fig. 1). Under general anaesthesia and with fluoroscopy, reduction was attempted using manual longitudinal traction with lateral traction to the femur. This was unsuccessful. The hip was then exposed through an iliofemoral approach. The femoral head had burst through the capsule medially, and reduction was blocked by the tight anterior structures of the capsule, labrum and rectus femoris (Fig. 2), which were released. Reduction was achieved using a corkscrew to provide traction in the line of the femoral neck, with the hip flexed to 30° to relax the iliopsoas muscle. After operation he was mobilised with partial weight-bearing for six weeks using a brace to prevent full extension and abduction. No abnormality was detected on CT apart from a small indentation fracture. MRI at 14 weeks showed no evidence of avascular necrosis. He made a full recovery.

**Case 2.** A 30-year-old man was admitted after a motorcycle accident with gross fixed abduction of the hip. Manual reduction was unsuccessful and further reduction was attempted using the traction table, where a greater longitudinal load could be applied through the foot piece. Success was then achieved by simultaneous lateral traction to the thigh with gradual adduction of the hip and slow release of the longitudinal traction, swinging the hip into adduction and internal rotation in a controlled manner. CT showed no fracture of the femoral head. The patient was mobilised in a brace with partial weight-bearing for six weeks. MRI at this stage showed no evidence of avascular necrosis. He made a full recovery.
Discussion

Epstein and Wiss divided anterior dislocation of the hip into type A, pubic or superior, and type B, obturator or inferior. Rockwood and Green modified Epstein’s classification of anterior dislocation into type 1, superior (including pubic and subspinous) and type 2, inferior (including obturator and perineal dislocations). In reality, obturator dislocations, although classified as anterior, are distinct injuries requiring a different method of reduction. The mechanism of injury is forced abduction. The hip lies in external rotation and abduction, and the anteroposterior radiograph of the pelvis clearly shows the head of the femur in the obturator foramen. Epstein and Harvey recommend reduction by traction in the line of the femur with the hip flexed, and with gentle internal rotation and abduction. We found this method to be ineffective with manual traction and questioned the virtue of further abduction of a hip already grossly abducted. Adduction, with gradual release of the longitudinal traction, proved to be more effective. Use of the traction table avoids anaesthetising the patient on the floor as described by Dawson and Van Rijn. The method which we describe is also safer, especially for patients with multiple injuries, than the gravity-assisted Stimson manoeuvre which requires the patient to be prone. It also avoids the firm jerk required in the reverse Bigelow manoeuvre and sharp internal rotation as described by Polesky and Polesky, which has been reported to result in fracture of the femoral neck. If closed reduction fails operation should be undertaken through an iliofemoral approach. Most authors have recommended traction for three to six weeks after simple dislocations, but modern management should consist of early mobilisation in an extension-limiting brace, since the hip is stable when flexed. Suitable imaging is needed to exclude indentation fractures and to monitor the vascularity of the head.

No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

References

Clostridium septicum gas gangrene (myonecrosis) is an acutely painful and rapidly fatal infection occurring in the absence of trauma. Urgent surgery is essential both to control pain and to ensure survival. Most patients who develop this infection have an underlying malignancy and clinicians should be aware of this association. We present a case of bifocal myonecrosis which to our knowledge has not been reported previously.

Received 1 December 1999; Accepted 17 January 2000

Gas gangrene or clostridial myonecrosis is a rare but potentially devastating condition. Rapid and extensive destruction of muscle occurs because of proteolytic toxins produced by the species of Clostridium. In its classic, traumatic form, clostridial gas gangrene occurs in association with gross destruction of soft tissues. Spontaneous gas gangrene (myonecrosis) caused by infection with Clostridium septicum is very rare and has a unique association with cancer of the colon. It is characterised by aggressive invasion and destruction of muscle with profound septic shock and if untreated is usually fatal within 48 hours. Mortality is high even with aggressive treatment.

Case report

An 83-year-old man presented with a one-day history of acute pain in his right forearm associated with rapidly progressive swelling. Examination revealed a markedly swollen and discoloured right forearm, with large blisters filled with clear serous fluid, and crepitus (Fig. 1). No distal pulses were present. He was haemodynamically stable with a temperature of 37.4°C. There was no history of trauma, but two months previously a diagnosis of carcinoma of the caecum had been made. A radiograph showed gas in tissue and fascial planes (Fig. 2). Fluid from the blisters was sent for bacteriological investigation and intravenous antibiotic therapy was started with gentamicin, clindamycin and clarithromycin. He was allergic to penicillin.

Discussion

Gas gangrene is usually associated with trauma, Clostridium perfringens being the most common pathogen. In a major review of the literature, it was found to occur after injury in 49% of patients, and after surgery in 35%. In 16% of patients, it had occurred spontaneously.

Spontaneous myonecrosis is typically caused by Clostridium septicum, a motile, anaerobic Gram-positive rod. This organism accounts for 4% to 20% of clostridial infections. Infection with Clostridium septicum may be associated with colorectal or haematological malignancy, diabetes mellitus and drug-induced immunosuppression. It is believed that Clostridium septicum gains access through the bloodstream by colonising a defect in the

Photograph showing the right upper limb on initial presentation.