Diagnostic Images

An acetabular fracture of the pelvis

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The patient

A 47 year old man, fell downstairs onto his left hip. He could not get up on his own and could not bear weight on the left leg.

Figure 1 Frontal view of pelvis showing a dislocation at the left hip and a loose bone fragment superimposed on the acetabulum.

Figure 2 Post reduction view of the left hip in good position and fracture of inferior margin of acetabulum.

Figure 3 CT scan at the level of the superior ramus of the pelvis. The acetabular fracture is on the posterior inferior quadrant of the acetabulum with slight postero-lateral displacement. A small effusion into the joint is also demonstrated (arrows).

Figure 4 Enlarged view of left hip showing the fractures in more detail including a minimal linear fracture more anteriorly.

Figure 5 Section through the body of the pubis. Detached bone fragments are lying posterior to the head of the femur.

Figure 6 Section through the greater tuberosities of the femurs with extracapsular bone fragments visible posterior to the neck of the femur and a few just anterior to the ischial tuberosity.

Figure 7 Compression fracture of the anterior aspect of the head of the femur with adjacent small intracapsular bone fragments as well as a few extracapsular bone fragments.

Comment

In fracture-dislocations of the hip surgical management subsequent to reduction of the dislocation is determined by the site of the fractures and whether loose fragments are intra- or extracapsular. Large fragments must be repositioned and fixed whereas if small they can be left *in situ*. Intracapsular fragments may require subsequent removal but not extracapsular fragments.

In this case the compression fracture of the anterior aspect of the head of the femur was also demonstrated. At present there is insufficient data available on this type of fracture to predict its effect on the subsequent function of the hip joint.

Computed tomography (CT) is used extensively in cranial and spinal cord trauma to show intracranial haemorrhage, cerebral contusion and cord compression. It is also extremely valuable in thoracic and abdominal trauma to visualize injuries to internal organs. In the pelvis, axial sections have a distinct advantage in showing the site and degree of displacement of fractures, their orientation in these dimensions and the relationship of small fragments. In the joint cavities soft tissue changes can also be well demonstrated particularly haemorrhage and effusions.