A 48-year-old man was referred to hospital because of instability and swelling of the left shoulder, associated with a worsening decrease of sensation in the left upper limb. These symptoms had developed gradually over 2 years.

The patient had been involved in a road traffic collision 3 years previously and had suffered minor trauma to the cervical spine. Cervical spine radiographs were normal at that time.

On examination the patient had a marked loss of proprioception in the left upper limb with decreased pain sensation and a poor range of movement in the left shoulder. A plain film of the shoulder (Fig. 1) showed joint disruption with deformity and destruction of the humeral head. Bone debris and shards of bone were visible in the periarticular soft tissues. Magnetic resonance imaging of the cervical spine was performed (Fig. 2).

What is the diagnosis?

For the answer and a discussion see page 309.