Distal radial fractures

Distal radial fractures

Extra-articular (type A) fractures of the distal radius may displace in a volar or dorsal direction. It is possible to reduce volar displaced fractures (Smith’s fracture) of the distal radius with a closed technique. However, they tend to be unstable and displace if held in a cast. Hence most volar displaced extra- articular distal radial fractures are reduced and held with a volar buttress plate (Figure 32.23). Most dorsally displaced fractures (Colles fracture) can be addressed with closed reduction and held in a cast. However, Bertil Stener , 1920–1999, Swedish orthopaedic surgeon, described the anatomy and treatment of a displaced ulna collateral ligament injury to the thumb in 1962. Robert William Smith , 1807–1873, Professor of Surgery , Trinity College, Dublin, Ireland, described the reverse Colles fracture in 1847. Abraham Colles , 1773–1843, President of the Royal College of Surgeons of Ireland (1802), Professor of Anatomy , Physiology and Surgery (1804) and described distal radial fracture in 1814. - some will slip or collapse with cast treatment, and so close review for the first few weeks is advocated. Fractures with significant initial displacement and dorsal comminution are at risk of early and late collapse. After thor - ough counselling the patient may choose to have the fracture reduced and then held surgically with K-wires, pla te and screw fixation (volar or dorsal) or external fixation. The K-wires may be placed acr oss the fracture fragments or intrafocally , going through the fracture site. The latter can be used to help reduce the fracture and then used to lock the fracture fragments in place (Figure 32.24). Treatment is individualised based on patient and fracture pattern factors. Intra-articular fractures (types B and C) of the

(b) (c) (d) Figure 32.23 An A-type or extra-articular metaphyseal fracture. A plain lateral radiograph of this Smith-type fracture (a, b) . Fracture /f_i xed to a plate. There is no interfragmental compression. The plate is pushing against or buttressing the distal fragment (c, d) .

distal radius require anatomical reduction of the joint surface; a gap or step of less than 2 /uni00A0 mm can be accepted in the radius. The distal radius fails fairly predictably with splitting of the lunate fossa fragment in the coronal plane and separation of the radial styloid. If a closed reduction can be achieved with manipulation, the fracture fragments can subsequently be held with K-wires, plate and screw fixation or external fixation. The most common form of treatment is closed r eduction and percutaneous K-wire fixation, supplemented with a plaster cast for 4–6 weeks.

(b) Figure 32.24 (a) K-wires placed across fracture fragments; (b) /uni00A0 intrafocal K-wires used to help reduce the fracture.

Distal radial fractures

Extra-articular (type A) fractures of the distal radius may displace in a volar or dorsal direction. It is possible to reduce volar displaced fractures (Smith’s fracture) of the distal radius with a closed technique. However, they tend to be unstable and displace if held in a cast. Hence most volar

displaced extra- articular distal radial fractures are reduced and held with a volar buttress plate (Figure 32.23). Most dorsally displaced fractures (Colles fracture) can be addressed with closed reduction and held in a cast. However, Bertil Stener , 1920–1999, Swedish orthopaedic surgeon, described the anatomy and treatment of a displaced ulna collateral ligament injury to the thumb in 1962. Robert William Smith , 1807–1873, Professor of Surgery , Trinity College, Dublin, Ireland, described the reverse Colles fracture in 1847. Abraham Colles , 1773–1843, President of the Royal College of Surgeons of Ireland (1802), Professor of Anatomy , Physiology and Surgery (1804) and described distal radial fracture in 1814. - some will slip or collapse with cast treatment, and so close review for the first few weeks is advocated. Fractures with significant initial displacement and dorsal comminution are at risk of early and late collapse. After thor - ough counselling the patient may choose to have the fracture reduced and then held surgically with K-wires, pla te and screw fixation (volar or dorsal) or external fixation. The K-wires may be placed acr oss the fracture fragments or intrafocally , going through the fracture site. The latter can be used to help reduce the fracture and then used to lock the fracture fragments in place (Figure 32.24). Treatment is individualised based on patient and fracture pattern factors. Intra-articular fractures (types B and C) of the

(b) (c) (d) Figure 32.23 An A-type or extra-articular metaphyseal fracture. A plain lateral radiograph of this Smith-type fracture (a, b) . Fracture /f_i xed to a plate. There is no interfragmental compression. The plate is pushing against or buttressing the distal fragment (c, d) .

distal radius require anatomical reduction of the joint surface; a gap or step of less than 2 /uni00A0 mm can be accepted in the radius. The distal radius fails fairly predictably with splitting of the lunate fossa fragment in the coronal plane and separation of the radial styloid. If a closed reduction can be achieved with manipulation, the fracture fragments can subsequently be held with K-wires, plate and screw fixation or external fixation. The most common form of treatment is closed r eduction and percutaneous K-wire fixation, supplemented with a plaster cast for 4–6 weeks.

(b) Figure 32.24 (a) K-wires placed across fracture fragments; (b) /uni00A0 intrafocal K-wires used to help reduce the fracture.

Distal radial fractures

Extra-articular (type A) fractures of the distal radius may displace in a volar or dorsal direction. It is possible to reduce volar displaced fractures (Smith’s fracture) of the distal radius with a closed technique. However, they tend to be unstable and displace if held in a cast. Hence most volar displaced extra- articular distal radial fractures are reduced and held with a volar buttress plate (Figure 32.23). Most dorsally displaced fractures (Colles fracture) can be addressed with closed reduction and held in a cast. However, Bertil Stener , 1920–1999, Swedish orthopaedic surgeon, described the anatomy and treatment of a displaced ulna collateral ligament injury to the thumb in 1962. Robert William Smith , 1807–1873, Professor of Surgery , Trinity College, Dublin, Ireland, described the reverse Colles fracture in 1847. Abraham Colles , 1773–1843, President of the Royal College of Surgeons of Ireland (1802), Professor of Anatomy , Physiology and Surgery (1804) and described distal radial fracture in 1814. - some will slip or collapse with cast treatment, and so close review for the first few weeks is advocated. Fractures with significant initial displacement and dorsal comminution are at risk of early and late collapse. After thor - ough counselling the patient

may choose to have the fracture reduced and then held surgically with K-wires, pla te and screw fixation (volar or dorsal) or external fixation. The K-wires may be placed acr oss the fracture fragments or intrafocally , going through the fracture site. The latter can be used to help reduce the fracture and then used to lock the fracture fragments in place (Figure 32.24). Treatment is individualised based on patient and fracture pattern factors. Intra-articular fractures (types B and C) of the

(b) (c) (d) Figure 32.23 An A-type or extra-articular metaphyseal fracture. A plain lateral radiograph of this Smith-type fracture (a, b) . Fracture /f_i xed to a plate. There is no interfragmental compression. The plate is pushing against or buttressing the distal fragment (c, d) .

distal radius require anatomical reduction of the joint surface; a gap or step of less than 2 /uni00A0 mm can be accepted in the radius. The distal radius fails fairly predictably with splitting of the lunate fossa fragment in the coronal plane and separation of the radial styloid. If a closed reduction can be achieved with manipulation, the fracture fragments can subsequently be held with K-wires, plate and screw fixation or external fixation. The most common form of treatment is closed r eduction and percutaneous K-wire fixation, supplemented with a plaster cast for 4–6 weeks.

(b) Figure 32.24 (a) K-wires placed across fracture fragments; (b) /uni00A0 intrafocal K-wires used to help reduce the fracture.

Revision #1
Created 2025-12-31 15:13:29 UTC by Omar Ayman
Updated 2025-12-31 15:13:29 UTC by Omar Ayman