

A TOTAL GLENOID FRACTURE SEPARATED ALONG THE LINE OF THE ANATOMICAL NECK AND ASSOCIATED WITH A FISSURE OF THE INFRASPINOUS PART OF THE SCAPULAR BODY

Patient: 38-year-old man
Cause: fall from a motorcycle
Injury-to-operation interval: 4 days
Surgical approach: Judet approach with reflection of the infraspinatus
Follow-up period: 2 years
Result: excellent

Note: This case documents that even a total three-part fracture of the glenoid can be treated with an excellent result. In the literature, these fractures are classified as comminuted, with a not very good prognosis, and recommended for non-operative treatment.

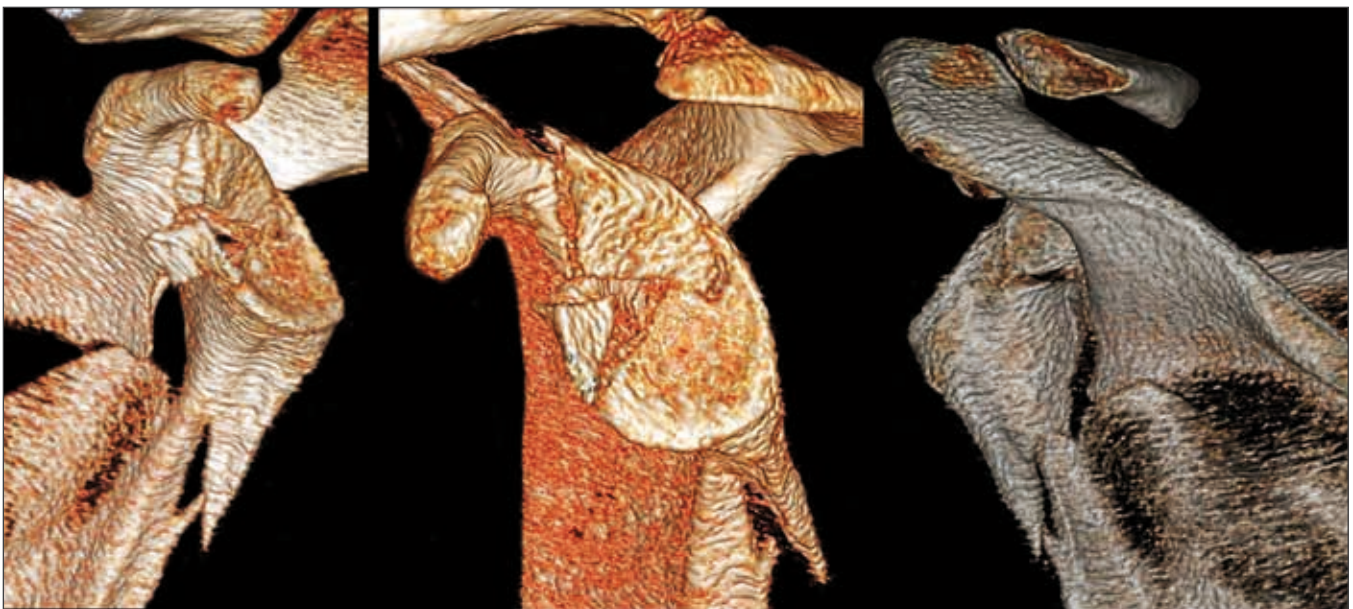


Fig. 1 The fracture on 3D CT reconstructions.

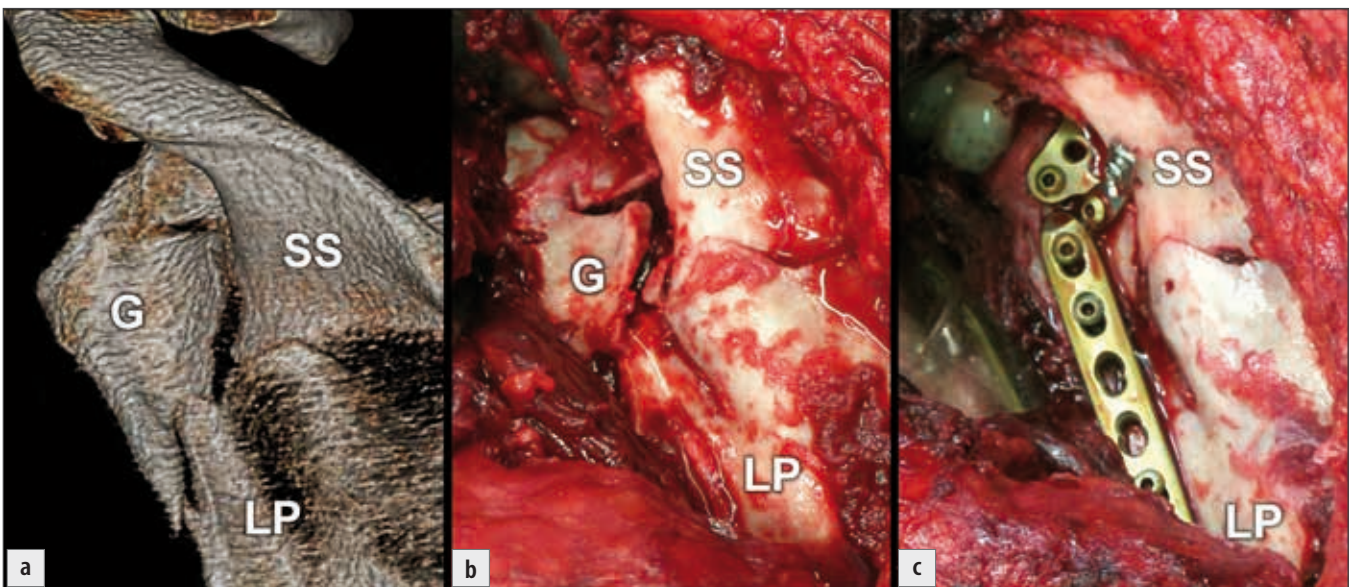


Fig. 2 Fracture reconstruction: **a)** 3D CT reconstruction; **b)** intraoperative finding; **c)** completed internal fixation. G – glenoid fragment, LP – lateral pillar, SS – scapular spine base.

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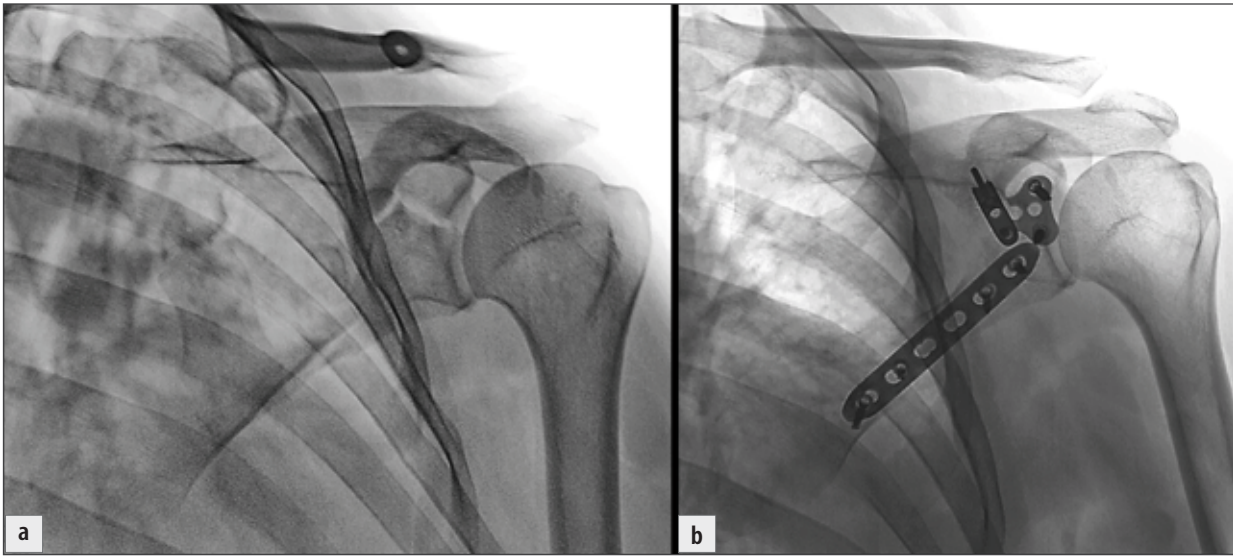


Fig. 3 The outcome of reconstruction on radiographs: **a)** preoperative; **b)** postoperative.

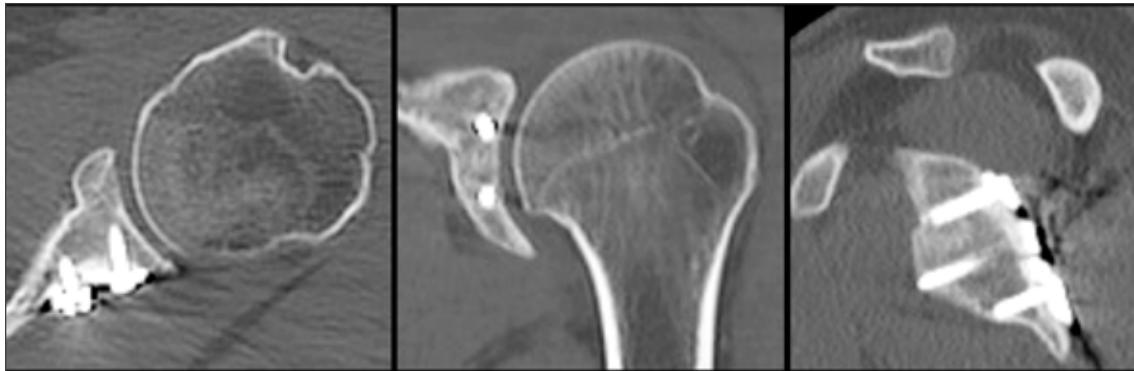


Fig. 4 Postoperative 2D CT reconstruction of the glenoid.



Fig. 5 Postoperative 3D CT reconstruction of the scapula.

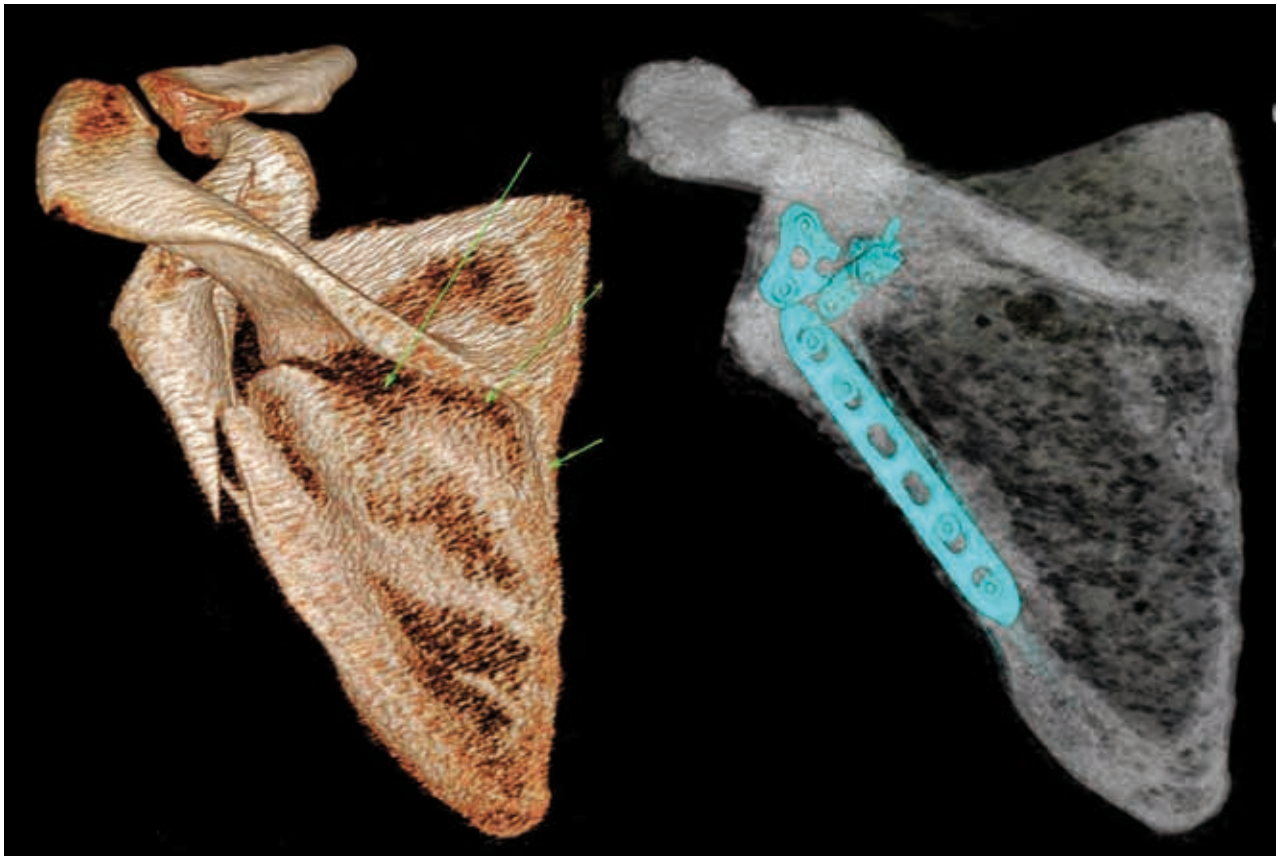


Fig. 6 The 2-year outcome of operation on comparative pre- and postoperative 3D CT reconstructions of the scapula. Green arrows show the course of the fracture line to the spinomedial angle.



Fig. 7 Functional outcome 4 months postoperatively.



Fig. 8 Functional outcome 2 years postoperatively.

A COMPLEX INTRAARTICULAR FRACTURE

Patient: 48-year-old woman

Cause: fall from a slowly-moving motorcycle and striking her back on a curb

Injury-to-operation interval: 4 days

Surgical approach: Judet approach with reflection of the infraspinatus

Follow-up period: 2.5 years

Result: excellent

Note: This is a good example of a very severe complex intraarticular fracture of the scapula, with an excellent result after operative treatment.



Fig. 1 CT fracture anatomy: **a)** anterior view; **b)** lateral view; **c)** posterior view.

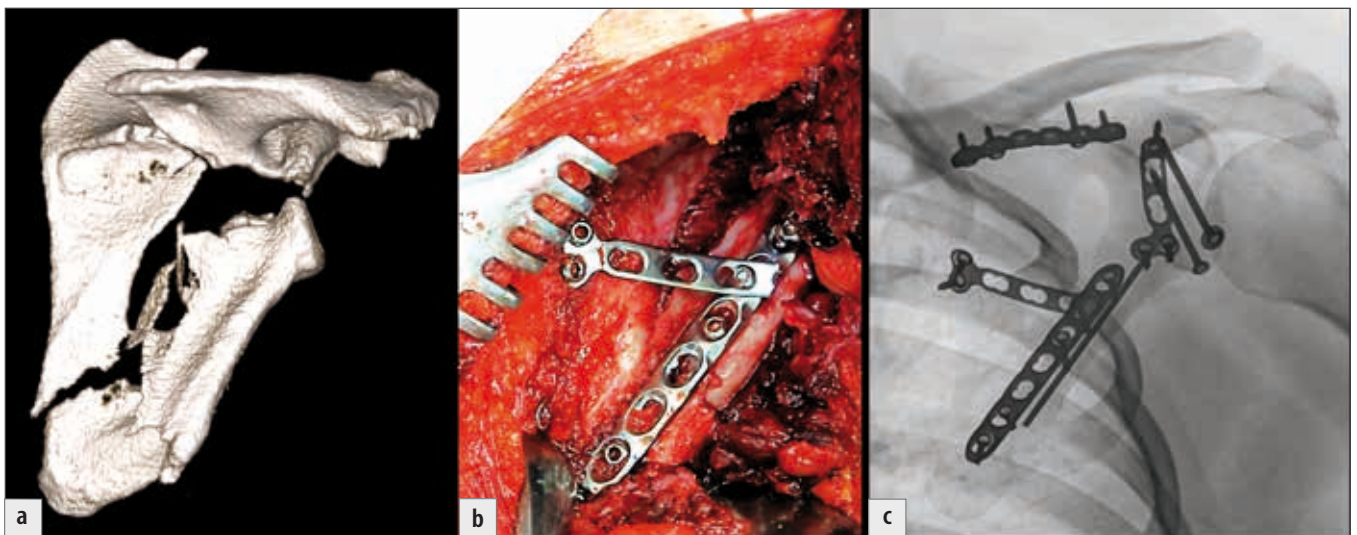


Fig. 2 The result of reconstruction: **a)** preoperative 3D CT reconstruction; **b)** intraoperative photograph after completion of internal fixation; **c)** a mirrored postoperative radiograph showing clearly all the implants used, including the K-wire in the lateral pillar.

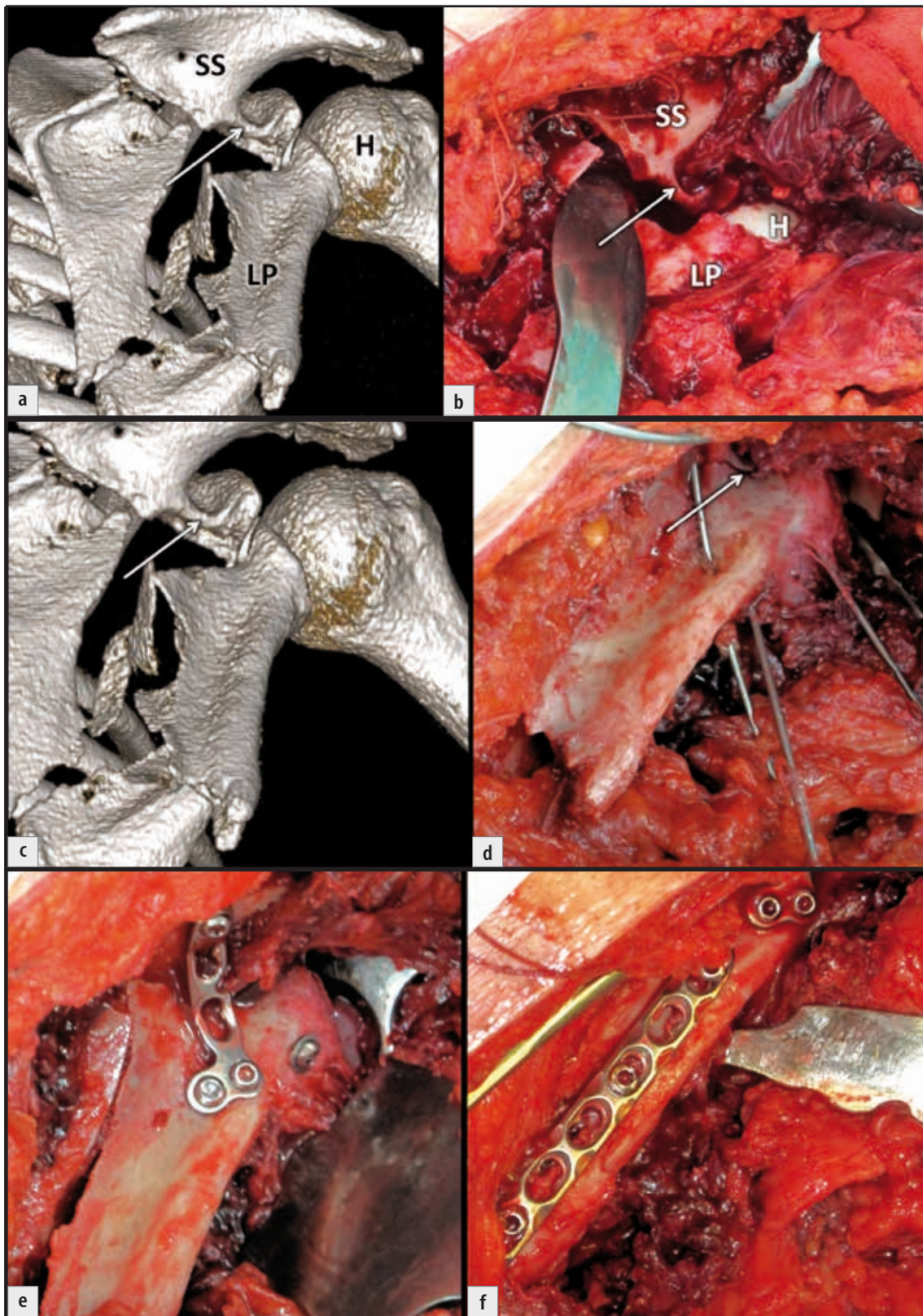


Fig. 3 Fracture reconstruction: **a)** 3D CT reconstruction of the fracture from the posterior aspect; **b)** intraoperative photograph before reconstruction; **c)** detail of the fracture on 3D CT reconstruction; **d)** reduction and temporary fixation of the glenoid with K-wires; **e)** internal fixation of the glenoid with a lag screw and L-plate; **f)** stabilization of the lateral pillar using a straight plate. H – humeral head, LP – lateral pillar, SS – scapular spine. White arrow – the suprascapular nerve in the spinoglenoid notch.

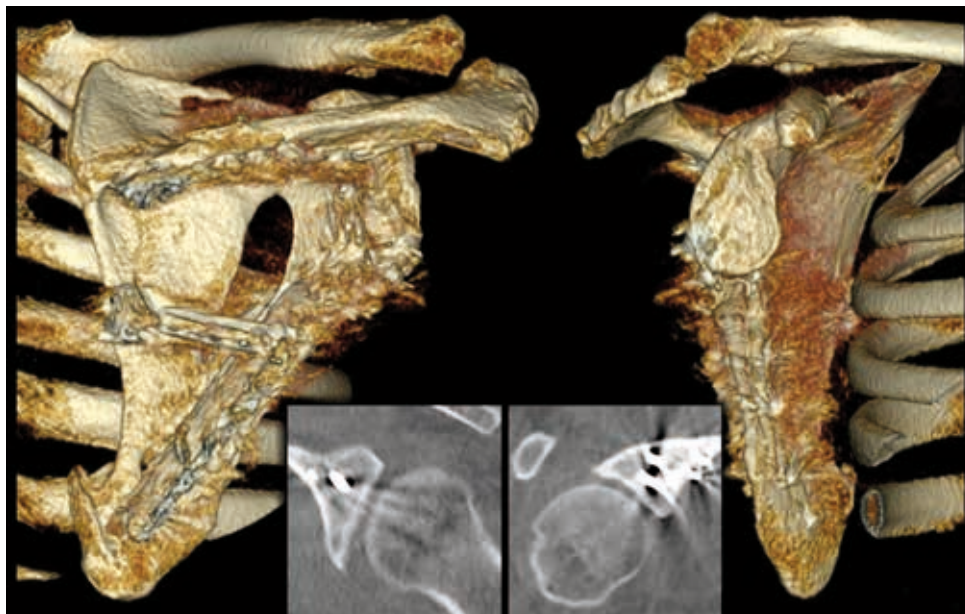


Fig. 7 Follow-up CT scan 2.5 years postoperatively.

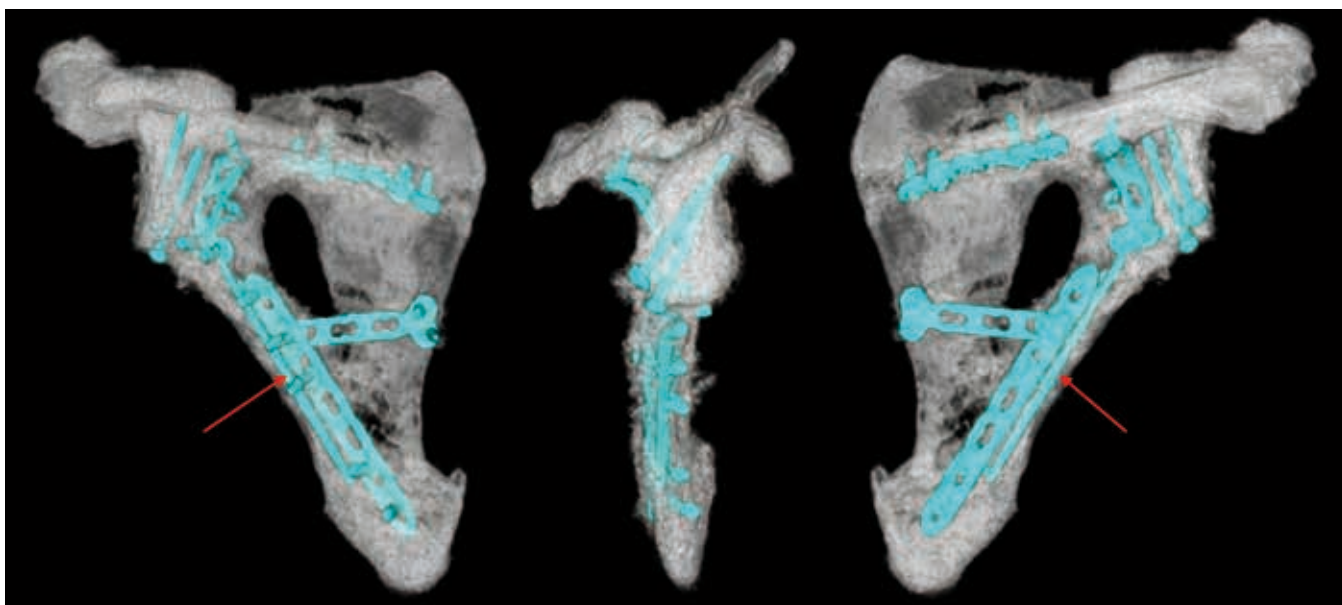


Fig. 8 Position of implants on 3D CT reconstructions 2.5 years postoperatively. Red arrow – the lost K-wire.



Fig. 9 Functional outcome 2.5 years postoperatively.

A COMPLEX INTRAARTICULAR FRACTURE OF THE SCAPULA

Patient: 35-year-old man

Cause: fall from a motorcycle

Injury-to-operation interval: 10 days

Surgical approach: Judet approach with reflection of the infraspinatus

Follow-up period: 10 years

Result: excellent

Note: This is an example of excellent long-term radiological and functional results in a severe complex intraarticular fracture.



Fig. 1 Fracture anatomy on 3D CT reconstructions. The fracture was assessed as a complex intraarticular one because in addition to a glenoid fracture, both pillars were damaged.

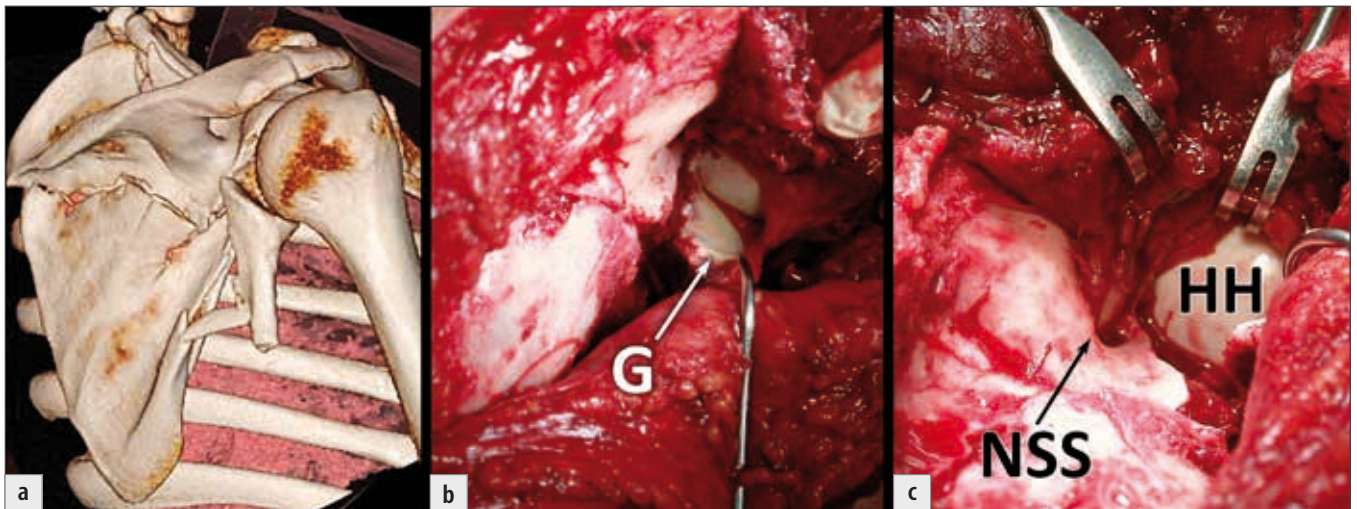


Fig. 2 Intraoperative finding: **a)** 3D CT reconstruction of the fracture from the posterior view; **b)** a view down the open glenohumeral joint; **c)** entry of the supraclavicular nerve passing via the spinoglenoid notch into the infraspinatus. G – glenoid, HH – humeral head, NSS – supraclavicular nerve.

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