The novel use of an external fixator connecting rod and synthetic bone substitute to achieve anatomic reduction of depressed tibial plateau fracture fragments

AK Prasad, M Rashid, N Heidari
Royal London Hospital, UK

CORRESPONDENCE TO
Nima Heidari, E: nima.heidari@bartshealth.nhs.uk

Elevation of depressed articular fragments is crucial for anatomic reduction of tibial plateau fractures. We describe a technique of elevating the depressed fragment using a cortical window, an external fixator connecting rod (Fig 1) and injectable bone substitute.

A cortical window is made under image guidance using a 2.5mm drill to make four holes in a square configuration. A narrow osteotome is used to connect three sides. The connecting rod is inserted into the cortical window and used as a punch to elevate the articular fragment under image guidance (Fig 2). Injectable bone substitute is then used to fill the defect created (Fig 3).

Figure 1  External fixator rod

Figure 2  Elevation of articular fragment with the connecting rod

Figure 3  Injectable bone substitute used to fill defect