

supplementary information

title: Arthroscopic-assisted balloon tibioplasty versus open reduction internal fixation (ORIF) for treatment of Schatzker II–IV tibial plateau fractures: Study protocol of a randomized controlled trial

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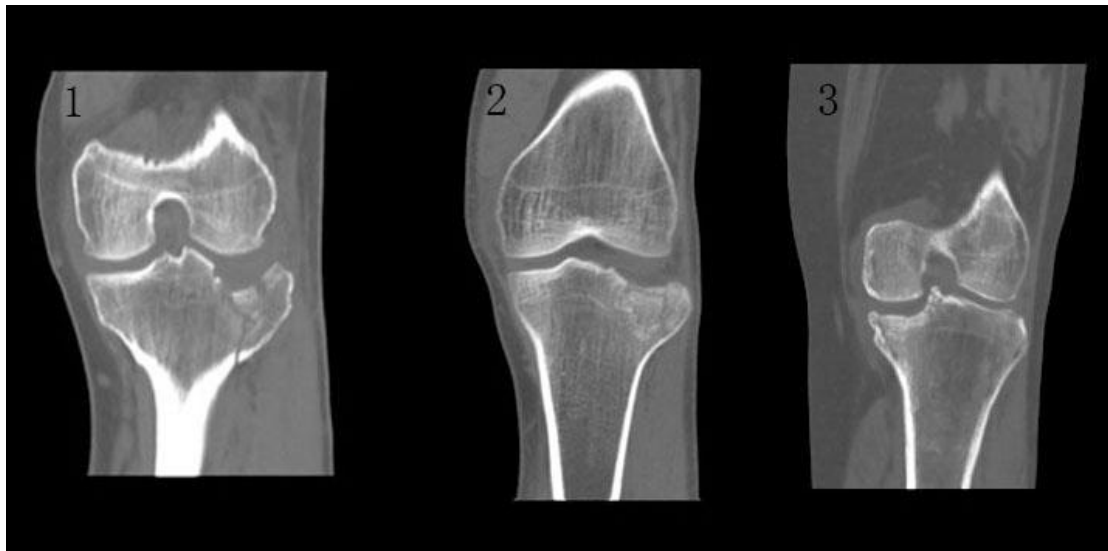
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supplementary information, S1

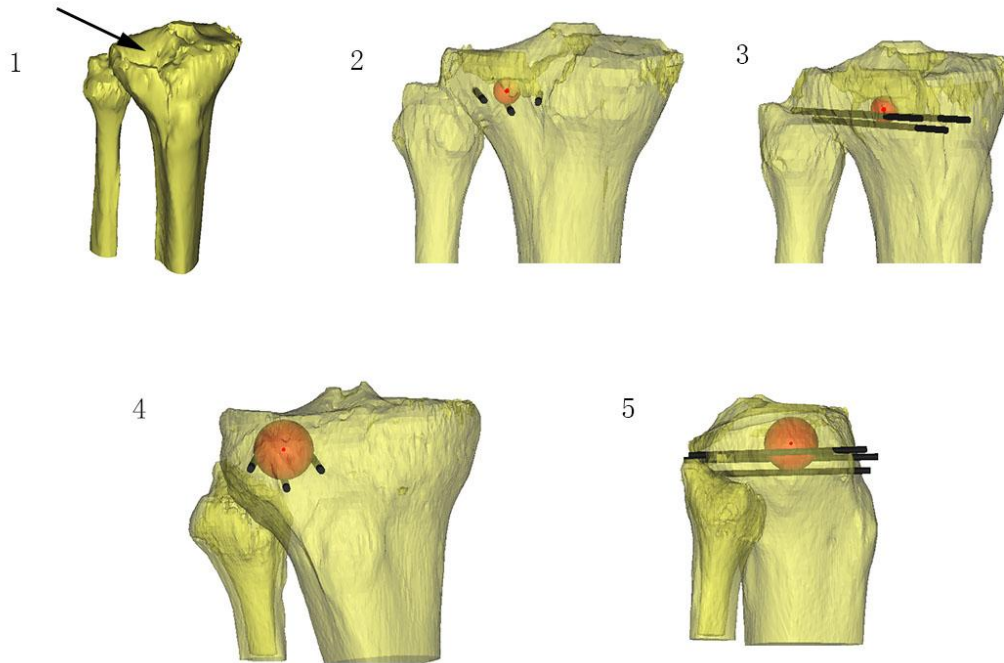
CT scan of Schatzker II to IV tibial plateau fractures, which conform to our inclusion criteria.



1, CT scan of Schatzker II tibial plateau fracture, which include the lateral platform split and depression (left limb); 2, CT scan of Schatzker III tibial plateau fracture, which only include the lateral tibial plateau depression (left limb); 3, CT scan of Schatzker IV tibial plateau fracture, which only include the medial tibial plateau depression (left limb).

supplementary information, S2

Simulated the operation process of Schatzker III tibial plateau fracture with Mimics software



1, The black arrowhead in the figure points to the depression of the lateral tibial plateau; 2, Three Kirschner wires and the balloon are placed below the depressed fragment under fluoroscopy (anteroposterior); 3, Three Kirschner wires and balloon are placed below the depressed fragment under fluoroscopy (laterolateral); 4, The balloon slowly inflated with contrast solution, and the depression of the lateral tibial plateau will be anatomical reduction (anteroposterior); 5, The balloon slowly inflated with contrast solution, and the depression of the lateral tibial plateau will be anatomical reduction (laterolateral). After removal of the balloon, calcium phosphate cement will be injected into the cavity produced by the balloon under fluoroscopic guidance, ensuring there is no excessive cement overflow into the tibial medullary cavity.