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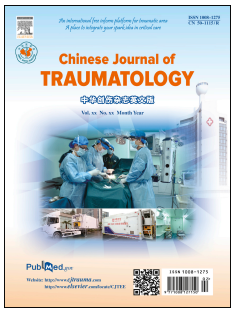

Distal femoral physeal crush injury with metaphyseal comminution – a report of two cases and a new perspective to physeal injury

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Case report

Distal femoral physeal crush injury with metaphyseal comminution – a report of two cases and a new perspective to physeal injury

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Abstract

The physis of a long bone may get 'sandwiched' and crushed between the metaphysis and the epiphysisif it is traumatically loaded along its long axis. Such a physeal injury may lead to complications like angular deformities and growth restrictions and hence, management of such injuries requires adequate planning and attentive execution.

Two patients with distal femoral physeal crushing were treated using such a ring fixator that one ring had the wires passing through the epiphysis and the other through the femoral shaft. On table image intensifiercontrolled distraction of the crushed physis was done to bring the height of the physis similar to that of the opposite limb. Patients were followed up for more than two years clinically and radiologically.There was no clinical or radiological angular deformity of the operated limbs. MRI scans showed intact physes with no physeal bar formation in either of the two patients.

The distraction obtained by the ring fixator appears to have provided ample 'breathing space' to the compressed physis and that the growth potential may have been re-gained by the procedure. However, two years is a relatively short duration of follow-up and further follow-up of longer duration and in greater number of patients is needed to gauge the actual effectiveness of the technique used by us.