

COMPRESSION BOLTS AT THE DISTAL SIDE OF THE KNEE



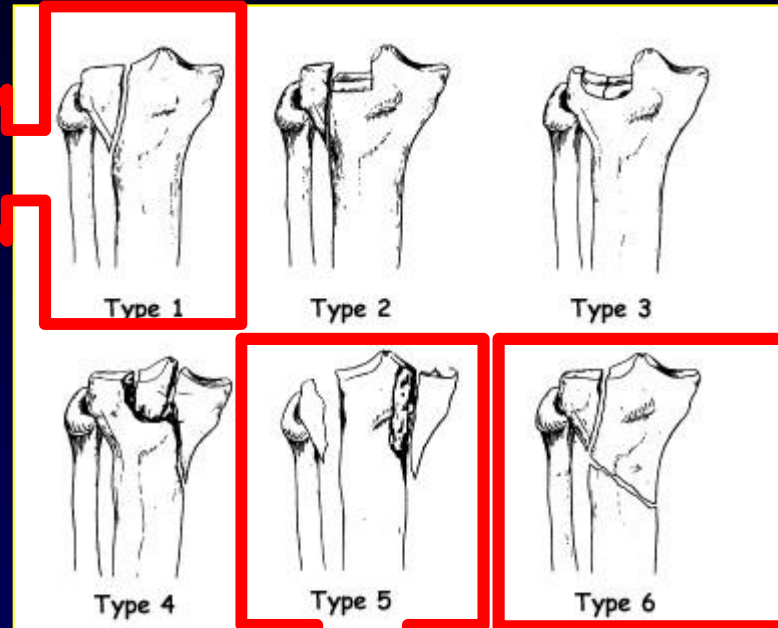
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Aim of the Study

To verify the usefulness of
compression bolts in the
management of specific intra-
articular proximal tibial fractures



Schatzker classification of tibia plateau fractures

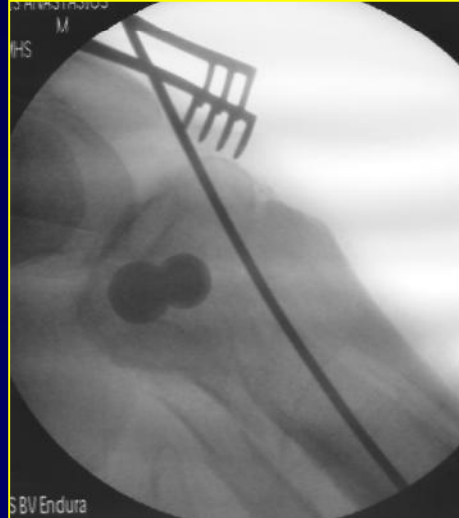
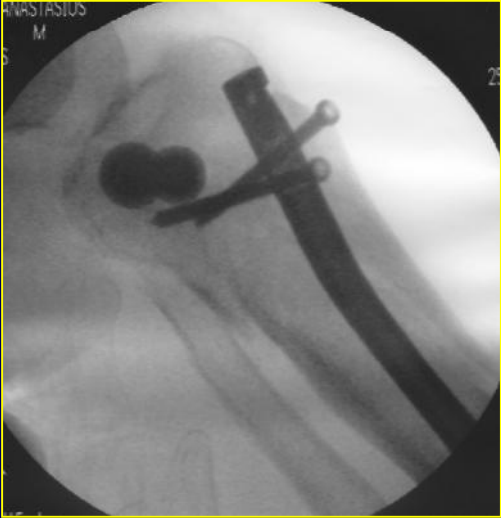


Patients & Methods

Period:	June 2005 – Dec 2010
Patients:	12 {9 ♂ – 3 ♀}
Ages:	25 – 76 y (mean 41.3)
Fractures:	Type I: 4 (Group A) Type V: 1 & Type VI: 7 (Group B)
Time of surgery:	1 – 32 days post injury (av: 8)
Follow-up:	6 – 54 months (av: 18)
Surg. technique:	Type I fractures: compression bolts Type V and VI: bolts and IM nailing

Schatzker type V & VI: Surgical technique





Results

- No neurovascular complications or infections
- No loss of reduction or other problems related to the implants
 - All fractures healed from 6 – 20 weeks
- All patients regained full range of knee motion and returned to pre-injury level of activities
- No-one has required metalwork removal, so far

Cases

31y ♂, RTA, Schatzker I



3w post-op

58y ♂, RTA Schatzker I or II



6m post-op, FWB

68y ♀ RTA, Schatzker V



42 y old ♂, RTA, heroin addict Schatzker VI



2 months post-op, PWB



Discussion

There have been several studies in the English literature that describe the use of cannulated or solid cancellous screws in the management of simple fractures (Schatzker I – III)

Siegler J. et al: Orthopaedics and Traumatology: Surg and Res, 2011 (France)

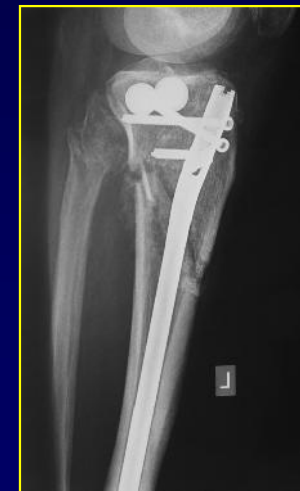
Mallina R. et al: Knee, 2010 (UK)

Kayali C. et al: Canadian Journal of Surgery, 2008 (Turkey)

Walz M. et al: Unfallchirurg, 2006 (Germany)

Sirkin MS. Et al: Clin Orthop Relat Res, 2000 (USA)

In the present study we present our experience with the use of compression bolts in both simple and complex intra-articular fractures of the proximal tibia



The results have been excellent and the condylar bolts seem to enhance the stability of fixation while facilitate the implementation of a truly minimally invasive technique (IM Nailing) in complex fractures and expedite mobilisation and weight bearing



Future actions

- Biomechanical studies
- Comparative clinical studies
- Impacted tibial plateau fractures



Thank you