

Orthofix Dynamic Axial External Fixation of Long Bone Fractures in Acute Spinal Cord Injury (Summary of Paper)★

R. G. Pringle, FRCS

Consultant Orthopaedic Surgeon, Midlands Spinal Injuries Unit, Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry, Shropshire, England

We have used the Orthofix method of external fixation for the management of long bone fractures, and particularly complicated tibial injuries, for 2 years.

Orthofix is a single plane system applied to one surface of the limb only and has been found to provide excellent stability during fracture healing, while permitting the application of compression or distraction as desired. When in place it permits good and easy access to the soft tissues both for nursing and for reconstructive surgery.

To date we have used this system in four widely differing difficult tibial fractures associated with acute spinal cord injury (3 paraplegia, 1 severe tetraparesis). Application is simple and percutaneous, using image intensification, and disturbs the patient very little. In one severely compound injury a rotation flap was performed after application of the fixation system and primary skin healing obtained. Nursing management was simplified greatly in these cases and no other support was required for the injured limb.

Immobilisation of a fracture in this way in a paralysed limb does appear to delay callus formation but primary bone healing has been obtained in all cases to date. However, as the tetraparetic patient recovered, his spasticity delayed fracture consolidation, and external bracing proved necessary temporarily as he became ambulant.

This system has proved extremely helpful in the early management of these patients through its simplicity of application and by stabilising the injured limb without leading to pressure problems. However, the later management of the long bone fractures after removal of the fixation has been found to require continuing supervision until consolidation has been achieved.

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References

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