

Management Of Femoral Osteomyelitis Using Monorail System (LRS)

Nazri Mohd-Yusof

International Islamic University of Malaysia, Kuantan, Malaysia

Treatment of femoral osteomyelitis is difficult and associated with high incidence of persistence infection, non-union, malunion, joint stiffness and muscle weakness. Surgical debridement, specific antibiotic, removal of dead space and maintenance of stability using external fixation devices are important principles to ensure success of treatment.

However, applying external fixation of femur is difficult because of the surrounding muscles, the neurovascular location and the proximity with the opposite limb and the perineum. Lateral fixation offers the best solution because it is safe, minimise transfixing the muscle and most comfortable for the patient.

The traditional monolateral fixation is not strong enough to overcome the strong deforming force of the adductor muscles which lead to varus deformity. The ring fixation, although provide a stable fixation of bone, is bulky and uncomfortable for the patients.

The modern unilateral external fixation with the monorail system provides better stability by having a larger screw diameter with conical hydroxyapatite coated thread fixed in a rigid clamp that are connected to the rail. It also allows compression at the fracture site, lengthening and bone transport. It is also more comfortable for patients. However, care must be taken during removal to avoid fracture at the docking site, regenerate or screw hole