Treatment for flexion contracture of the knee during Ilizarov reconstruction of tibia with passive knee extension splint.

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Abstract

Joint stiffness is one of the complications of limb procedure. It develops as a result of failure of knee flexors to lengthen in tandem with the bone, especially when there is inadequate physical therapy to provide active and passive mobilization of the affected joint. We are reporting four patients who developed fixed flexion contracture of their knees during bone lengthening procedure for the tibia with Ilizarov external fixator. Three of them were treated for congenital pseudoarthrosis and one was for fibular hemimelia. None of them were able to visit the physiotherapist even on a weekly basis. A splint was constructed from components of Ilizarov external fixator and applied on to the existing frame to passively extend the affected knee. Patients and their family members were taught to perform this exercise regularly and eventually near complete correction were achieved. With this result, we would like to recommend the use of this "Passive Knee Extension Splint" to avoid knee flexion Contracture during limb lengthening procedures with Ilizarov external fixators.