



Abstract: Use of an Ilizarov/Taylor Spatial Frame in Patients with Total Joint Replacement

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What was the question?

Can an Ilizarov/ Taylor Spatial Frame be used safely in patients who have had a total joint replacement? What are examples of situations of use?

How did you answer the question?

Our data registry was used to identify 13 consecutive patients who underwent treatment with the Ilizarov method between 1999 and 2003 and who had previous total joint replacement. Average age was 66 years (range: 49-86 years). Treatments included ankle arthrodesis in 6, subtalar fusions in 2, distal tibia fracture in 1, osteotomy of the tibia and fibula for deformity correction in 4, and repair of tibial nonunion in one patient(s). This group of patients had previous total joint replacement an average of 10 years (range: 2-26 years) before the current treatment. This included 8 total hip replacements, 11 total knee replacements, and 1 total ankle replacement. Pin tracts were kept at least 4 cm from the joint replacement. Pin tract infection was treated aggressively with oral antibiotics, intravenous antibiotics, and pin removal and/ or exchange.

What are the results?

The average time in frame was 4.6 months (range: 2.1-11.3 months). Eleven patients developed pin tract infections and were treated with oral antibiotics. Four patients were additionally treated with intravenous antibiotics, and eight patients had pin removals for infection. No patients developed osteomyelitis. No patients developed infection of the joint replacement.

What are your conclusions?

The Ilizarov/ Taylor Spatial Frame can be used safely in patients who have had a total joint replacement. One can avoid joint infection and osteomyelitis by treating pin tract infections aggressively.

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