Repeated intramedullary stabilization following failed telescopic nail lengthening – An appropriate treatment strategy

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Abstract

Externally magnetic-controlled intramedullary telescopic nails for bone lengthening have recently gained popularity due to many advantages when compared to more traditional lengthening methods. Patients requiring lengthening often present with a clinical history of previous multiple surgeries increasing the risk for complications of further procedures. However, studies regarding the treatment of complications following implantation of these devices remain scarce in literature. Therefore, we report our experience with revision surgery after lengthening with a telescopic intramedullary lengthening nail. In 6 out of 20 cases (30%) of lower limb lengthening for leg length discrepancy revision surgery was necessary. Two revisions were necessary due to nail breakage while the other 4 cases required a secondary procedure for non-union. In all cases, revision surgery included standard intramedullary locking nailing with additional autologous bone grafting. The median interval between index and revision surgery was 11.5 months (range 2-15 months). Satisfying clinical results, the intended extend of lengthening and bony consolidation was observed in all 6 patients. We conclude that revision surgery using an intramedullary locking nail with autologous bone grafting after failed telescopic nail-based lengthening represents an useful salvage procedure in these cases.

Keywords: Intramedullary; Limb lengthening; Nailing; Precise nail; Revision.

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