Evaluation of the results of elastic intramedullary nailing as diaphyseal fracture treatment in children and adolescents

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Abstract
The standard care for most pediatric diaphyseal fractures has been conservative treatment (casting or traction). Over the past two decades, pediatric orthopedists have increasingly recognized the advantages of fixation and rapid mobilization. However, the risk of complications particularly re-fracture after external fixation and avascular necrosis after solid intramedullary nailing have prevented these methods from becoming adopted as the best surgical line of treatment. Elastic intramedullary nailing is used now in many centers, the aim of the present study is to find out the reliability and effectiveness of elastic nailing as diaphyseal fracture treatment in children and adolescents. We evaluated the treatment of 64 patients with 66 fractures of long bone (femur, tibia, humerus and forearm) by elastic titanium nails, patients between the ages of 4 to 16 years were evaluated, 7 patients lost to follow up, out of the 57 cases there were excellent and satisfactory result in 55 patients. Flexible nailing is a very simple, reliable, effective and minimally invasive method of treatment of diaphyseal fractures in children. It may prove to the ideal implant to stabilize many pediatric diaphyseal fractures.

Keywords
Elastic intramedullary, pediatric fractures, treatment,