

언어구분	ENG	논문구분	원저/구연	논문분야	소아
논문제목	소아 대퇴골 간부 골절에서 유연성 골수내정 고정술 이후 과성장의 위험인자				
영문제목	Risk Factors for Overgrowth after Flexible Intramedullary Nailing as a Treatment for Pediatric Femur Shaft Fractures				
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증례 (or 수술술기) : Introduction There are a variety of treatment options for pediatric femur shaft fractures, depending on the patient's age, the location and type of fracture, and the experience of the surgeon. In infants younger than 6 months of age, simple splinting with or without a Pavlik harness is usually recommended. Early spica casting is safe and effective, usually employed in children until about 6 years of age. For children 6 to 12 years of age, various methods of treatment such as traction followed by a spica cast, flexible intramedullary nailing, plating, and external fixation can be used. Rigid locked or flexible intramedullary nailing can be used for children older than 12 years according to the state of the patient's physis, the surgeon's experience, and the patient's weight.^{1,2} Ligier et al reported favorable results with elastic stable intramedullary nailing using the Nancy technique for the treatment of pediatric femoral shaft fractures.³ Since excellent results had been reported using the flexible intramedullary nailing technique,⁴⁻⁶ flexible intramedullary nailing (FIN) has gained popularity over recent years for the treatment of pediatric femoral shaft fractures in school-aged children (i.e., 6 to 12 years). While rigid locked intramedullary nailing and external fixation can result in such complications as osteonecrosis, pin site infection, and repeat fracture, FIN provides satisfactory fixation, abundant callus formation, and easy insertion with minimally reported complications.^{1,5-8} Complications due to femur shaft fractures in children treated with FIN include soft tissue irritation by the extra-osseous portion of the nail tip at the insertion site, angular or rotational deformity, delayed union, nonunion, and infection.¹ Leg-length discrepancy (LLD) in growing children after treatment with FIN has been reported by several investigators.^{3,5-7,9-11} The incidence and severity of overgrowth after femur shaft fractures in children has been variably reported as a result of either fracture shortening or overgrowth due to stimulation of the physis. Incidence of LLD greater than 10 mm following FIN has been reported to be around 8% to 20%,^{5,9,11} and the severity of overgrowth was diverse as well.^{4,5} To our knowledge, there is no consensus regarding which factors have an effect on overgrowth of femur length after FIN in pediatric patients. The aim of this retrospective study is to analyze the risk factors for femoral overgrowth after FIN in pediatric femur shaft

fractures.

acknowledgment :

pediatric femur shaft fracture, flexible intramedullary nailing, overgrowth
