Femoral shaft fractures

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It is possible to treat diaphyseal fractures of the femoral shaft non-operatively . The fracture can be reduced and held in position until union with traction; however, it takes 3 months. This is a long time to be in hospital and carries all the potential risks of prolonged bed rest. Most femoral shaft fractures are treated with a locked intramedullary nail. With modern locked intramedullary implants, the patient will be up and out of bed the following day and, if it is an depends on the fracture pattern and implant used. If there is a simple fracture pa ttern with cortical apposition, it will be possible to mobilise with crutches, weight-bearing as comfort allows. Although it may still take 3 months or more f or the fracture to unite, the implant will be able to carry the load until union, allowing earlier return to function out of the hospital. Femoral shaft fractures

Femoral shaft fractures in children are treated based on the age and size of the child: /uni25CF infants (0–18 months); /uni25CF toddlers and small children (18 months–4 years); - /uni25CF children (4–12 years); /uni25CF older children/adolescents.

(b)

In infants (0–18 months), ensure that there is no evidence of non-accidental injury . In infants under 12–15 /uni00A0 kg, gallows traction is acceptable. This traction involves suspension of the legs vertically with the buttocks just o ff the bed. In toddlers and small children treatment is by traction initially followed by hip spica application. Shortening of up to 1 /uni00A0 cm and angulation of 15–20° can be accepted depending on the age of the child because of extensive remodelling potential. As the child gets older and time to union increases, the non-operative measures of traction and hip spica become more cumbersome. In children from 4 to 12 years se veral treatment options exist: traction and hip spica, elastic stable intramedullary nailing (ESIN), external fixation or plate fixation. Definitive trea tment depends on surgeon skills, facilities and patient and parent needs. In older children and adolescents, non-operative treatment with traction and hip spica cast application becomes less toler able. Depending on the size and build of the patient, operative treatment may include ESIN (Figure 32.31), exter nal fixation Augusto Sarmiento , b. 1927, Colombian orthopaedic surgeon, Professor and Chairman of the Department of Orthopedics, University of Southern California, Los Angeles, CA, USA. or plate fixation. In larger overweight adolescents, titanium elastic nails may not be strong enough to resist bending forces and locked intramedullary nailing may be considered. Summary box 32.6 Fractures in the skeletally immature /uni25CF /uni25CF /uni25CF /uni25CF It is important, however, to remember that there is a small chance of avascular necrosis of the femoral head if an ante - grade intramedullary nail is used prior to or just after physeal closure. This is a rare but devastating complication in this age group. Far lateral entry point nails on the greater trochanter have been developed to limit the e ff ect on the blood supply to the femoral head; however, the risk of avascular necrosis persists.

(b) Figure 32.30 Slipped left upper femoral epiphysis. (a) Plain radio graph; (b) the injury highlighted. Figure 32.31 (a–c) Femoral shaft fracture in a child that has been stabilised with elastic nails.

Do not forget non-accidental injury Be reluctant to remanipulate a physeal injury Elastic nails are a signi /f_i cant step forward in fracture treatment in children Not many fractures require operative intervention in children

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