

Pushing The Limits of Elastic Nails

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INTRODUCTION:

Elastic nails are typically indicated in length stable paediatric femur fractures. Appropriate nail size and a good three point fixation is crucial in providing fixation stability.

REPORT:

We describe the usage of elastic nail in a 13 year old boy weighing 65kg. He sustained a close femur fracture following a motor vehicle accident. He was initially placed on skin traction and scheduled for surgery the following day. Radiographs revealed a fracture at the diaphyseal region with a small area of comminution. The size of the canal was measured at 10 mm. The reason to use elastic nails over a antegrade adolescent nail or a conventional plate, were due to certain factors.

- 1) Elastic nails were readily available and free in this centre
- 2) Retrograde entry will avoid the risk of avascular necrosis of femoral head
- 3) Fracture pattern was stable
- 4) Smaller surgical incision
- 5) Experience in clinical outcome

We were able to stabilise the fracture with two 4mm nails via a close method. Traction table was not used



Figure 1: Initial Fracture and Fixation

CONCLUSION: The upper age limit for using a elastic nail has been reported to be around 13-15 years and Implant failure has most often been described in patients more then 50kg. Our centre believes that a stable fracture pattern plays a more important role rather then patient weight and age in determining outcome.



Figure 2: 6 weeks follow up showing adequate callus formation no angular deformity

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