

# **TITANIUM ELASTIC NAIL (TEN) IN PEADIATRIC LONG BONE FRACTURE – A CASE REPORT**

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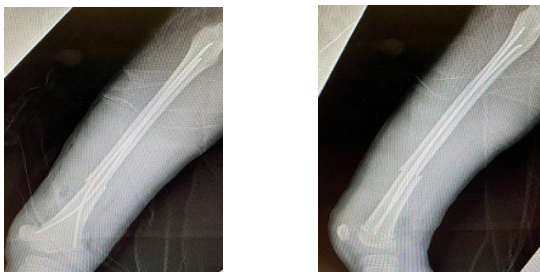
## **INTRODUCTION:**

Children should not be treated as young adults. Non-surgical method always the first line of treatment in children for long bone fracture. Surgical treatment is indicated when satisfactory reduction cannot be maintained. TEN proposed as first choice of treatment in children age group 6-16 years old [1].

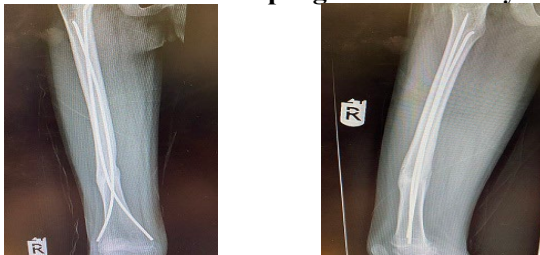
## **REPORT:**

7 years old, boy, allegedly fell while playing, sustained closed fracture distal third of right femur. He underwent open reduction and TENs pin insertion over right femur. On day 1 post operation, he was discharged with non-weight bearing ambulation advice. During clinic follow-up, no complication was discovered, wound was well healed and he demonstrated satisfactory functional outcome. At 9 weeks after TENs pin insertion, there was evidence of union. Subsequently, the TENs pins were removed at 35weeks.

9.93 weeks. The average time for femur, tibia and upper limb fracture to united is 10 weeks, 11 weeks and 8 weeks respectively [1]. Furlan et al. reported 6.3% patients experienced complications such as neuropraxia, skin irritations, protrusions of the wire and superficial skin infections [2]. Major complications of TEN such as knee haemarthrosis, migration of TENs pin and refracture were observed in case series conducted among older group childrens (9-14 years) [3].



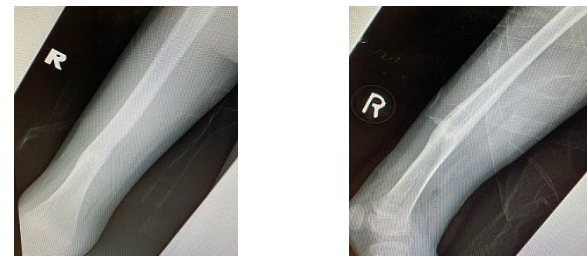
**Picture 1 & 2: Post-op right femur X-ray**



**Picture 3 & 4: Right femur X-ray**

## **DISCUSSION:**

Khuntia S. et al., reported union in all 30 patients treated using TEN with mean time of



**Picture 5 & 6: Post TEN removal x-ray**

## **CONCLUSION:**

TEN is very useful implant among children as it require minimal exposure, safe and has a low complication rate.

## **REFERENCES:**

1. Khuntia S. et al. Paediatric Long Bone Fractures Managed with Elastic Intramedullary Nails: A Retrospective Study of 30 Patients. Cureus vol. Apr 2020:12(4):e7847
2. Furlan et al. Elastic Stable Intramedullary Nailing for Pediatric Long Bone Fractures: Experience with 175 Fractures. Scandinavian Journal of Surgery:SJS. Sept 2011:100(3):208-15
3. Pai V.S et al. Femoral elastic nailing in the older child: proceed with caution. Injury Extra. 2005:36(6):185-9