

Exceptionnel Complication after Intramedullary Nailing of the Tibia

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DOI: [10.36347/sjmcr.2023.v11i07.023](https://doi.org/10.36347/sjmcr.2023.v11i07.023)

| Received: 26.06.2023 | Accepted: 18.07.2023 | Published: 28.07.2023

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Abstract

Clinical Image

Management of tibia fractures by intramedullary nails, has become the gold standard for diaphyseal fractures. High rate of union, acceptable alignment in all planes, and a low complication rate have been reported. A 52 - year - old women with a surgical antecedent fracture of the right leg operated 20 years ago, presented to the traumatology clinic for the removal of osteosynthesis materials from the leg. There was no history of recent injury and no information was available about the patient's subsequent progress, Examination revealed a frail old lady whose mobility was restricted by quasi complete expulsion of nail from right leg showing that blocked extension; signs of a moderately severe cellulitis over the lower part of leg. The fracture was well consolidated and showed no sign of complication radiographs showed a complete expulsion of nail proximally; we performed an ablation under spinal anesthesia with bone biopsy, who was normal at immediately after surgery, the patient was able to walk without difficulty with a walker without pain. the patient was lost sight of after. To the best of our knowledge, this is the first report of complete expulsion of nail in a patient after centromedullary nailing of the tibia.

Keywords: complications, intramedullary nailing, tibia, fracture.

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IMAGE IN MEDICINE

Management of tibia fractures by intramedullary nails, has become the gold standard for diaphyseal fractures. High rate of union, acceptable alignment in all planes, and a low complication rate have been reported [1].

A 52 - year - old women with a surgical antecedent fracture of the right leg operated 20 years ago, presented to the traumatology clinic for the removal of osteosynthesis materials from the leg (figure 1). There was no history of recent injury and no information was available about the patient's subsequent progress, examination revealed a frail old lady whose mobility was restricted by quasi complete expulsion of nail from right leg showing that blocked extension; signs of a moderately severe cellulitis over the lower part of leg. The X-ray film on her admission to the Casualty is shown in Figure.2.

The fracture was well consolidated and showed no sign of complication (figure 2) Radiographs showed a complete expulsion of nail proximally; we performed an ablation under spinal anesthesia (figure 3) with bone biopsy, who was normal at immediately after surgery, the patient was able to walk without difficulty with a walker without pain. the patient was lost sight of after.

Intramedullary nailing is nowadays a well-recognized and frequently used method for the stable osteosynthesis of tibia fractures. The technical errors and complications after this procedure are recorded and discussed in unlimited number of studies they include infection, compartment syndrome, deep vein thrombosis, thermal necrosis of the bone with alteration of its endosteal architecture, failure of the hardware, malunion, and nonunion. To the best of our knowledge, this is the first report of complete expulsion of nail in a patient after centromedullary nailing of the tibia. [2,3]



Figure 1: Clinical aspect of the patient



Figure 2: X-ray image of the right leg from the front (A) and from the side (B).



Figure 3: Postoperative clinical aspect.

Patient Perspective: the patient was satisfied with the treatment he received.

Informed Consent: the patient has been informed of the publication of this article; he has given his consent.

Competing interests: The authors declare no competing interest.

Authors' contributions: All authors contributed to the conduct of this work. All authors also claim to have read and approved the final manuscript.

REFERENCES

1. Pobłocki K, Domaradzki M, Gawdzik J, Prochacki P, Rajewski R. Powikłania po zespoleniu kości goleni gwoździem śródszpikowym [Complications after intramedullary nailing of the tibia]. *Chir Narządow Ruchu Ortop Pol.* 2011 Sep-Oct;76(5):274-7. Polish.
2. Lefaivre KA, Guy P, Chan H, Blachut PA. Long-term follow-up of tibial shaft fractures treated with intramedullary nailing. *J Orthop Trauma.* 2008 Sep;22(8):525-9.
3. Hendrickx LAM, Virgin J, van den Bekerom MPJ, Doornberg JN, Kerkhoffs GMMJ, Jaarsma RL. Complications and subsequent surgery after intramedullary nailing for tibial shaft fractures: Review of 8110 patients. *Injury.* 2020 Jul;51(7):1647-1654.