

## Title-infected exposed tibial plate-can it be a new ‘sinister popeye sign’?

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### Description

A 22 year old male patient came with leg injury after a bike accident 9 months back and diagnosed with Simple transverse fracture of distal 1/3rd of tibia & fibula with no medical comorbidities.

Open Reduction and Internal Fixation (ORIF) was done using distal tibial Locking Plate (LCP).

He was discharged satisfactorily with advice of NBW mobilization and lower limb PT. However, he missed regular OPD follow up and came 3 months later with infection (with serous discharge) and tibial plate popping outside the skin.

We observed it as a “Sinister Popeye Sign”, a nightmarish post-surgical complication with serious management concerns associated with plating of fractures.

Radiograph showed possibility of non-union both tibia and fibula fracture.

Wound swab for c and s for possible bacterial organisms was taken. It was found to be negative.

He was placed on broad spectrum antibiotics and was planned for staged surgery i.e. to tackle the discharge, exposed implant and soft tissues, so removal of the tibial plate was done with wound care.

It took around 6 months for complete healing. Now, second surgery is being planned for non-union and limb shortening by Ilizarov ring fixation, using the principle of distraction osteogenesis (Figures 1-5).



**Figure 1.** Tibial plate popping out of skin (Sinister Popeye Sign).



**Figure 2.** Radiograph showing non-union of fracture distal 1/3rd of tibia and fibula with tibial plate in situ.



**Figure 3.** Post-operative radiograph showing non-union of fracture distal 1/3rd of tibia and fibula with tibial plate removed.



**Figure 4.** Clinical picture after exposed plate removal.



**Figure 5.** Clinical presentation of healed wound.

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