

A DEMOGRAPHIC STUDY OF NON-UNION RATE OF ISOLATED TIBIA SHAFT FRACTURE WITH INTACT FIBULA IN A SINGLE CENTER

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Introduction: Isolated tibia shaft fracture with intact fibula is known to be difficult to treat, often complicated with malunion, delayed or even non-union. The intact fibula is often blamed in these problems as it will interfere with the bone healing by preventing effective compression at the fracture site. Management of such cases is still matter of debate to date. International literatures stated the non-union rates related to this type of fracture range from 1%-17%. However, a demographic study was never done in our population. Therefore, we would like to study the union rate of isolated tibia shaft fracture with intact fibula in our population and compare the similarities with those literatures available. Our hypothesis is isolated tibia shaft fracture with intact fibula will have high non-union rate if treated conservatively compared to operative treatment in our population. Our primary objective of this study is to study the non-union rate of isolated tibia shaft fracture with intact fibula in Sarawak General Hospital.

Methodology: A total of 80 patients were recruited in this study, with the mean age of 33.75 ± 12.2 (range from 16 - 63 years old). Most of the patients were male (N=60) compare to female (N=20). There are divided into 2 groups: conservative treatment group (N=40) and operative group (N=40).

Discussion: For conservative group, the non-union rate was 15% at 6 months post intervention, while for the operative group, the non-union rate was 7.5%. However, these results were not statistically significant. There was no significant correlation in term of types of management and the non-union rate in isolated tibia shaft fracture noted in our study.

Conclusion: Our study showed there was no significant correlation between the treatment modalities and union outcome in patients with isolated tibia shaft fracture with intact fibula.