

Treatment Options of Maxillofacial Fractures in Iran: A Comprehensive Systematic Review

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ABSTRACT

Background: The aim of this study was to systematically review the literature on the treatment options of maxillofacial fractures in Iran, complementing a previous article regarding causes and the overall prevalence.

Methods: A systematic search of PubMed, Cochrane Library, Web of Science (WS) and Google Scholar (GS) electronic databases was conducted to identify the relevant articles published up to January 2023. Studies reporting the treatment option of maxillofacial fractures in Iran were included in the analysis. MOOSE guidelines were adopted for the current systematic review. No data or language restriction were applied. Risk of bias across the articles was assessed.

Results: This systematic review included 13 articles with a total of 19,147 treated patients for maxillofacial fractures. ORIF was the most common type of treatment, but complications occurred in approximately 5% of cases. Mandible fractures were not statistically more treated by ORIF than closed reduction or conservative treatment, and no type of treatment was considered statistically preferable depending on the anatomical region affected by Iranian maxillofacial surgeons. The included studies were considered to have a low risk of bias, but many were not clear in reporting cross-referenced data regarding the type of treatment, which could be considered a major flaw.

Conclusion: Overall, this study provides valuable insights into the types of treatment used for maxillofacial fractures by Iranian surgeons and highlights the importance of clear reporting of data in research articles.

KEYWORDS

Iran; Middle East; Maxillofacial Fractures; Prevalence; Systematic Review

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INTRODUCTION

Maxillofacial fractures are a common type of injury that is frequently encountered in the emergency department. These fractures most commonly result from falls, road traffic accidents, assaults, and sporting injuries ¹⁻³. The mandibular bone is the most frequently fractured facial bone, followed by the zygoma and maxilla ⁴. The majority of mandibular fractures occur in young males aged 16-30 years ^{5,6}.

The diagnosis of maxillofacial fractures is usually made based on

The Comprehensive Classification Of Fractures

**Maurice E. Müller, Serge
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