

Sequencing in orthognathic bimaxillary surgery: which jaw should be operated first? A scoping review

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ADMINISTRATIVE INFORMATION**Support** - This publication was financially supported by the Strasbourg Osteosynthesis Research Group (S.O.R.G. e.V.).**Review Stage at time of this submission** - Completed but not published.**Conflicts of interest** - None declared.**INPLASY registration number:** INPLASY202390022**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 08 September 2023 and was last updated on 08 September 2023.**INTRODUCTION**

Review question / Objective Bimaxillary orthognathic surgery is widely used for the correction of dentoskeletal deformities. A particular and current topic of discussion is the surgery sequence (maxilla or mandible-first) as there is a lack of guidelines and consensus in the literature. The purpose of this scoping review is to provide a summary of the literature and highlight advantages and disadvantages of both maxilla-first and mandible-first approaches.

Condition being studied The articles included in this scoping review consider subjects that underwent orthognathic surgery for the correction of dentoskeletal deformities such as Angle class II and III, maxillo-mandibular asymmetries, Angle class I with large anterior or posterior open bite.

METHODS

Search strategy The PICO protocol was applied to determine the bibliographic research terms.

Participant or population No patients were evaluated directly.

Intervention Bimaxillary orthognathic surgery.

Comparator Mandible first VS maxilla first bimaxillary orthognathic surgery.

Study designs to be included Any study design was included as long it met inclusion/exclusion criteria.

Eligibility criteria Peer-reviewed journal papers, publication period: January 1978–May 2023, Orthognathic sequence topic.

Information sources Pubmed, Scopus and Web of Science databases were queried. Additional articles were added by citation searching.

Main outcome(s) The main outcome of this scoping review is to provide a summary of the literature and highlight advantages and disadvantages of both maxilla-first and mandible-first approaches.

Quality assessment / Risk of bias analysis No quality assessment /Risk of bias analysis was performed.

Strategy of data synthesis The included articles were read and discussed by four authors and the relevant informations were summarized in a table.

Subgroup analysis No subgroup analysis was performed.

Sensitivity analysis No sensitivity analysis was performed.

Country(ies) involved Italy.

Keywords Orthognathic surgery; Bimaxillary surgery; Surgical sequence in orthognathic surgery; mandible first; maxilla first; Le Fort I Osteotomy.

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