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The Role of Physiotherapy Interventions in The Management of Temporomandibular Joint Ankylosis: A Systematic Review and Meta-analysis

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ADMINISTRATIVE INFORMATION

Support - The authors thank the Deanship of Scientific Research at King Khalid University, Abha, Saudi Arabia for supporting the present research study through (GRP/37/43).

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 07 October 2023 and was last updated on 07 October 2023.

INTRODUCTION

Review question / Objective What is the efficacy of physiotherapy interventions in individuals who have Temporomandibular Joint Ankylosis?

Rationale Physiotherapy's efficacy in treating temporomandibular joint ankylosis is little understood. Thus, this study extensively reviewed the literature on physiotherapy for temporo-mandibular joint ankylosis.

Condition being studied Physiotherapy, TMJ Ankylosis.

METHODS

Search strategy A search was conducted on Scopus, Google Scholar, and PubMed using the specified search terms. Ankylosis of the temporomandibular joint.

Participant or population young, adoloeschent.

Intervention Physiotherapy role in treatment of TMJ ankylosis.

Comparator Randomized control trials.

Study designs to be included We took intoaccount both descriptive (case control andcohort) and interventional (trials) basedresearch that was written in English for thisreview.

Eligibility criteria The studies incorporated in the analysis provided information regarding the prevalence and clinical manifestation of the condition, various physiotherapy intervention

strategies employed, and the effectiveness of these interventions.

Information sources Scientific studies that specifically addressed the use of Physiotherapy in relation with Tmj Ankylosis were taken from several reliable sources, including Google Scholar, Pub-Med via MEDLINE, Springer, and Scopus, EBSCO host (Dentistry & Oral Sciences Source database), Science Direct, and Web of Science (All databases: WOS, KJD, MEDLINE, RSCI, SCIELO).

Main outcome(s) The data reveal that unilateral bone ankylosis is common. The data also demonstrate that PT improves postoperative outcomes and reduces adverse occurrences like re-ankylosis.

Data management Data was processed in Microsoft Excel (Excel 365; Microsoft Corp., Redmond, WA, USA). For export and data manipulation, Google Sheets (Alphabet Inc., Mountain View, CA, USA) were also used.

Quality assessment / Risk of bias analysis Two researchers independently assessed the risk of bias of the included articles using —JBI critical appraisal tools. The potential risk of bias was categorized as low if a study provided detailed information pertaining to 70% or more of the applicable parameters . Moderate risk was considered if a study provided information corresponding to less than 70% to 50% of the applicable parameters.

Strategy of data synthesis Two review authors (RS and SH) used the studies to help select studies and docu-ment their decisions. This was done in two stages, with the first stage consisting of a ti-tle and abstract screening of all studies against the inclusion criteria, and the second stage being a full text assessment of papers that were deemed potentially relevant based on the initial screening.

Subgroup analysis The data was compiled from a variety of articles:
• Author(s), year of publication, country, study design.
• Total number of patients/datasets.
• Training/validation datasets
• Test datasets
• Aim of the study.

Sensitivity analysis NA.

Language restriction Articles only in English were Selected.

Country(ies) involved Saudi Arabia.

Keywords TMJ , Ankylosis, Physiotherapy.

Dissemination plans All the data and the article will be share after the publication.

Contributions of each author
Author 1 - Saeed Hassan - Conceptualization and Drafting of Manuscript.
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