Clinical outcome of removable prostheses supported by mini dental implants. A systematic review.


Abstract

INTRODUCTION: For many years, edentulous patients have had no other option than conventional dentures to reestablish their oral function. To avoid the need for bone graft surgery, some professionals have suggested the use of mini dental implants (MDIs) to support prostheses. The MDIs are narrow implants, ranging approximately from 1.8 to 2.9 mm in diameter. Recently, the promising results of mini implants regarding osseointegration and patient satisfaction have led clinicians to accept them as a definitive treatment option.

OBJECTIVE: Therefore, the proposition of this systematic review was to assess information on the outcomes of MDIs supporting removable prostheses.

METHODS: The PubMed and Cochrane databases were searched for articles published before September 2017, which yielded a total of 774 studies for analysis. After exclusion and inclusion criteria, 22 prospective studies were included in this systematic review.

RESULTS: Most mini implants were placed in a flapless single-stage surgery and loaded immediately. Most studies reported failures in the first year and prosthetic complications. The mean survival rate of the selected studies was 95.6%, and mean follow-up was 22.8 months.

CONCLUSION: The MDI-supported removable prostheses successfully improved patients’ chewing and speaking ability, quality of life, and satisfaction, suggesting that MDIs are a viable and safe option to support removable prostheses in the mandibular arch.

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