

## Documents

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**Applications of Hyaluronic Acid (HA) in Dental Implant Treatment: A Systematic Review**  
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#### Abstract

Introduction: Hyaluronic acid (HA) has a long history and is widely used in cosmetics, medicine, and dermatology. This molecule is still considered relatively new in the field of dentistry. This study aimed to assess the application of HA in dental implant treatment. Method: Search in the multiple indexed databases such as Pubmed, COCHRANE, and Scopus was conducted up until August 2022 using the keywords "hyaluronic acid", "hyaluronan," and "dental implant." Results: The literature search identified 816 articles, and 17 were selected in this study. Three domains of use of HA in dental implant treatment were identified: surface modification of implant surface, treatment after insertion of a dental implant, and bone graft/membrane material. There are eight randomized control trials and nine non-randomized control trials included in this study. Only six studies showed statistically significant results with HA groups. Conclusion: Overall, there are positive findings on the application of HA in dental implant treatment, showing it can be used in dental implantology, with multiple categories of uses. © 2023 UPM Press. All rights reserved.

#### Author Keywords

Dental implant; Dentistry; Hyaluronan; Hyaluronic acid

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