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EC DENTAL SCIENCE
Mini Review

Interventions for Replacing Missing Teeth: Dental Implant, Bacteria, Antibiotics and Infections around Biomaterials, Biofilm-A Review

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Abstract

Dental Implants have been shown to an excellent interventions for replacing missing teeth. Dental implant is a biomaterials like natural teeth can be affected by microorganisms like bacteria which even, causes, peri-implantitis, peri-implant mucositis finally leads to implant failure. Dental implant are impervious to infections. In order to prevent infections antibiotics are shown to benefit in controlling infections, this review also seeks establish antibiotics are most effective during interventions of dental implant. There are many reasons for dental implant failure due to the develop of bacteremia is concern for dentists. This is due to the possibility of unfavorable result such as implant loss or lead to failure.

Keywords: *Biomaterials; Bacterial; Biofilm; Antibiotic Prophylaxis; Clinical Evidence; Dental Implants; Implant Placement; Systematic Review*

Introduction

Missing teeth can be usually replaced with dental implants in which a cap/crown, bridge or denture can be attached. During procedure Bacteria Can lead to infection and sometimes it may cause implant failure. Biomaterials (like-dental implant) can be infected and hard to treat. Although implants are impervious to disease or infection. Supporting Gingivae and bone aren't prone to Plaque, a Biofilm of a food and Bacteria that cultivate on tooth surface, can causes infection: gingival diseases that weakens the supporting tissues of implant and implant itself [1-17].

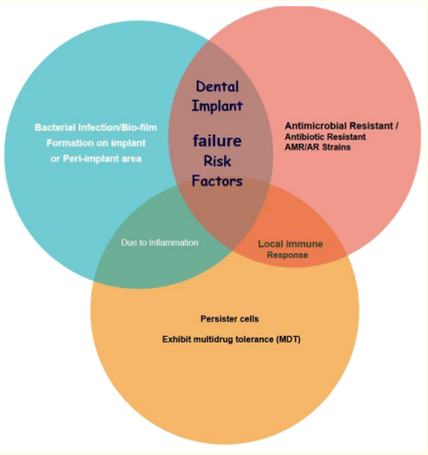

Figure 1

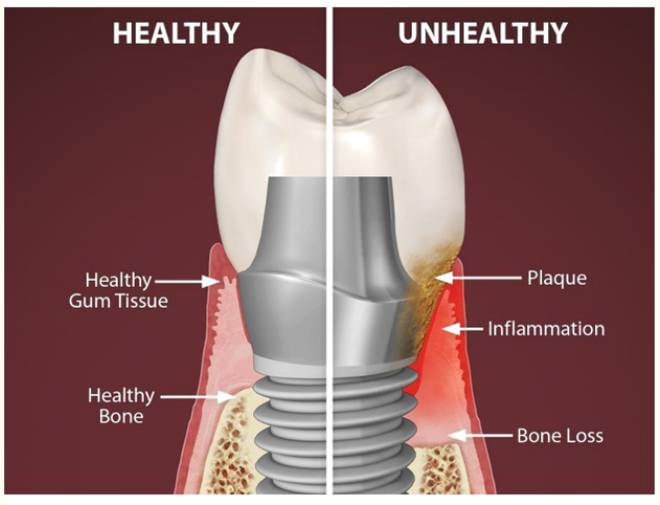

Figure 2

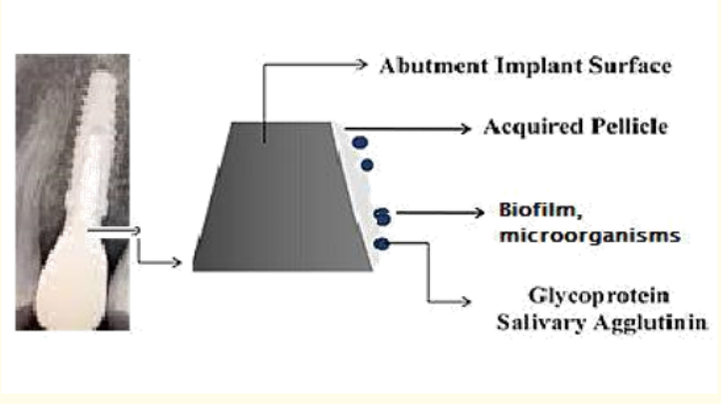

Figure 3

Materials and Methods

Review and meta-analysis, Literature data and analysis.

Data sources

Literature Review, Electronic databases, PubMed, Cochrane, Science Direct, and EMBASE via OVID were searched up to September 2019. Only randomized controlled clinical trials (RCT) using antibiotics were included. Outcome measures were set on dental implant failures or postoperative infection incidence after dental implant surgery.

Result

Literature search and Quantitative studies: In Data collections figure showing the search results, from 1200 search results, 200 were excluded as they did not relate to human Studies, after that, 643 citations were excluded because they were not clinical trials. 232 citations were discarded and excluded due to replica. Afterwards 125, studies which were 100 citations were excluded, mostly due to immune compromised patient, dental conditions or no implant or no antibiotics. Finally, 25 full articles for reviewing quantitative studies and results.

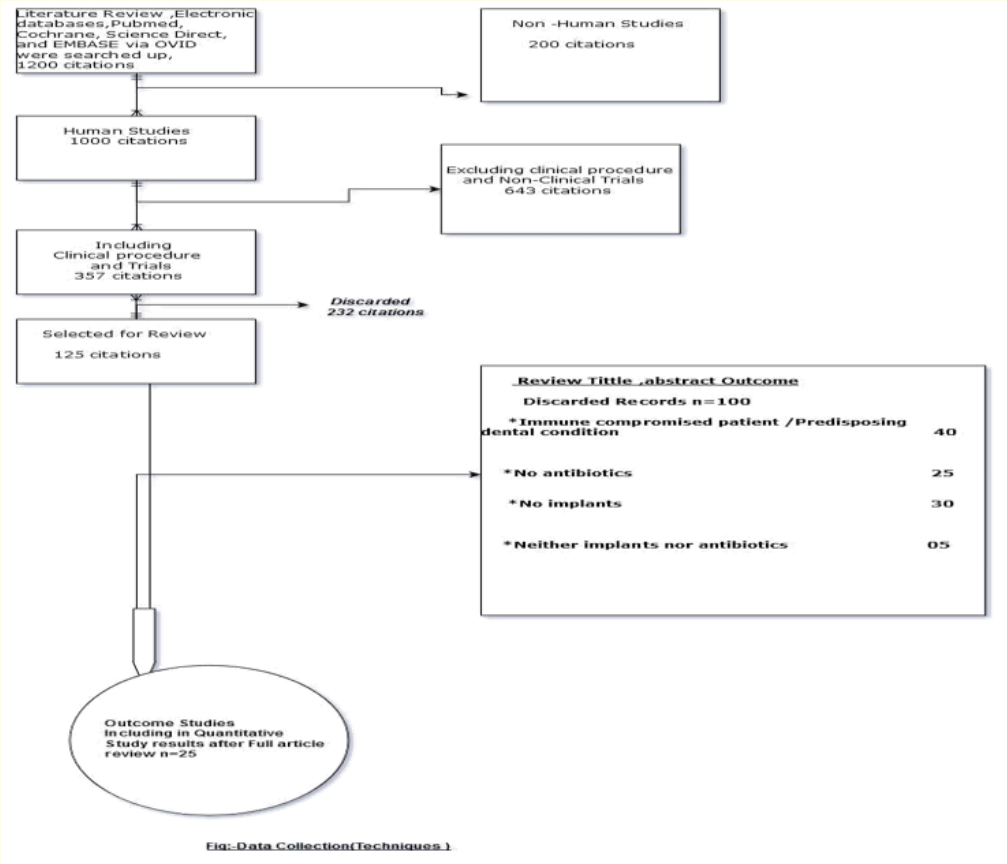

Figure 4

Conclusions

Consequently, Scientific evidence suggests that, in general, antibiotics are beneficial for reducing failure of dental implants placed in ordinary conditions. It is still unknown whether postoperative antibiotics are beneficial, and which antibiotic is the most effective.

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