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Review Article

A Review of Dental Implants

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ABSTRACT

This review mainly used to test the null hypothesis of no difference in implant failure rates, marginal bone loss, risk of postoperative infection the insertion of implant in smokers mainly affected the failure rate, the marginal bone loss as well as risk of postoperative infection [3]. The result should be the evidence is difficult to be interpreted with caution due to the presence of uncontrolled turbulence in the included studies [3] .The provision of short Implant prostheses in patients with atrophic alveolar ridges appears to be the successful treatment option in the short term hence more scientific significance is required for long term [2]. It is thus important to perform an updated periodic review to synthesised clinical research, evidence inactive to the matter [3].

KEYWORDS

Implant, Dental.

INTRODUCTION

A dental implant is a titanium post (like a tooth root) that is surgically positioned into the jawbone beneath the gum line that allows your dentist to mount replacement teeth or bridge into that area an implant doesn't come loose like a denture can. Dental implants also benefit general oral health because they do not have to be anchored to other teeth, like bridges. The various accepted criteria for assessment of implant success are proposed by Albrektsson and colleagues identify clinical proof of successful osseo integration and survival of implants [1]. The introduction the last decade of modified implant desings and micro structure implant area that augment integretable surface area help to adverse effect of decreasing implant to maintain extent bone implant interface. Hence implant length may not be primary factor of prostheticloads to bone implant interface [2]. The poor bone density of atrophic jawbone the posterior location in mouth of restorations represent important factors [2]. In addition is higher number of loss the teeth non smoker [3]. The study does not evaluate the effects of smoking on marginal bone around implant. In the presence meta-analysis contains non-randomized and performed various sensitivity to verify the results are restrictions on the data included [3]. It contains health status natural looking soft tissue as well as prosthodontics parameters

patient satisfaction. The most commonly used criteria to defined treatment success in implant dentist [1]. The main purpose of this systematic review was to examine the most frequently used criteria to define treatment success in implant dentistry [1]. A dental implant that includes a cylindrical body which can be positively secured against micromotion within a bore in a jawbone by a spindle-shaped expansion mechanism and further secured against the contamination by microorganism through a gap in an internal channel of tubular portion by a compressive contact mechanism.

Dental Implantation

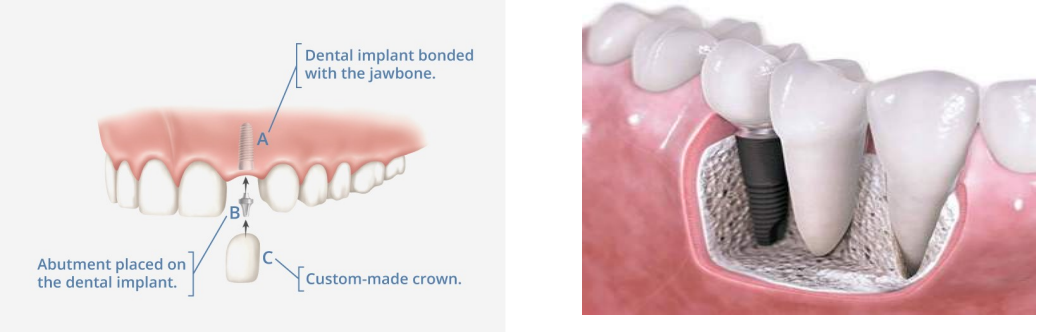

Figure shows typical Dental implantations.

MATERIAL METHOD :

Study selection criteria :

The titles and abstracts of all reports identified by the electronic searches and read independently by three authors .For studies to meet the inclusion criteria for there insufficient data in title and abstract to make clear decision to get full report [3]. Clinical studies of computer applications in surgical implant dentistry were eligible if they had at least five participants and reported clinical, radiologic or patient-centred outcomes. No specific follow-up period was required for evaluation of intraoperative complications or unexpected events during the operation; at least 12 months follow-up was required for the evaluation of implant and prosthetic survival and complication rates. Studies with zygoma implants, pterygoid implants or mini-implants for orthodontic planning were excluded, as were studies that reported exclusively on radiographic planning

Search strategy:

Electronic search in MEDLINE database was performed for studies published in English from January 1980 until october 2010.

The following inclusion criteria were used to conduct the studies selection

1. Studies reporting on success criteria used to assess treatment outcomes.
2. Randomized controlled clinical trials (RCT) and prospective studies with minimum five-year follow-up
3. Studies with thde at least 10 patient.
4. Studies reporting on roughed surface implant

The electronic search was supplemented by a manual search of the bibiloraphies of all articles and they related reviewthat were selecting full-text reference manager software.

Outcome variable:

The first outcome variable examined by success rate of present in the selecting article. The second variable the number of parameter used to define success such as implant, perimplant, prosthesis, soft tissue and patient subjective evaluation.

Assesement of study quality:

These are the following selection of eligible papers on the bases contain and exclusion criteria , studies rated their quality.

The risk bias was defined low , medium and high. To decrese the bias of much as possible. We studies showing high risk of bias.

Results:

The electronic search in the MEDLINE/pubMED database for studies published from January 1980 until October 2010 according to the key words 'outcomes' AND 'implant dentistry', 'success rates' AND 'implant', 'success criteria' AND 'implant'and 'survival rates' AND 'implant [1],

Excluded studies :

The studies were excluded when the follow-up period was less than 5 years, if a machined implant surface wad used if fever than 10 patients were included in the study . In addition multiple publications on the same cohort of patients were also excluded; only the most longitudinal was included. The rationale for excluding machined surface implant was that predominantly roughened surface implants are used currently. Only RCTs and prospective studies were considered since they represent the highest level of evidence [1].

Discussion :

A clinical trial will usually define or specify a primary end point as a main success of the therapy investigated. It is not common in the dental implant literature, where survival rates of single parameter hence are often presented. In a meta –analysis homogeneity implies mathematical compatibility between the result of each single trial .Hence , narrowing the inclusion criteria rises homogeneity but also excludes the result more trials and thus risks exclusion of important data. This was the reason to include non-randomized studies in the present meta-analysis. In the present meta analysis, the statistical unit of analysis for 'implant failure' was the implant .

It would be technically more correct to adjust for the effect of collected correlated observation ; hence , this are challenging analytic method and implant survival. It so high that failing to adjust for collected ,correlated , observation would have small effect on the estimate and abnormality of success. Furthermore, sensitivity analysis suggests that smoking significantly affects the survival of implants inserted only in the maxilla. Its improvement and implant failure rates due to smoking in hypothesized to be related mainly to the effect of smoking in osteogenesis and angiogenesis. It is important to it stress to that caution is required when sensitivity

analyses are performed, because both type 1 and type 2 errors are likely given the multiple testing and the subgrouping. Moreover, this studies were never designed for showing this more effects and thus all findings are presumably heavily biased.

This fact is that titanium with different surface modification shows wide range of chemical and physical properties , and surface topographies or morphologies depending on how they are prepared and handled . It is known as surface properties of dental implament . The fact is that titanium with different surface modification shows a wide range of chemical and physical properties ,and surface topographies or morphological , depending on how they are prepared and handled . These are known that the surface properties of dental implants.

It seems evident from our result that the smoking associated with increased number a failures irrespective of the type of implant surface being investigated. These contrasting result between the present meta-analysis and previous studies indicate that controversy still exists and that there is need for more studies to evaluate the long-term outcome implants with the altered surface characteristics in smokers. The use of grafting in some studies is compounding risk factor ,as well as the insertion of some or all implants in fresh extraction sockets , the insertion of implants in different locations, different healing periods, different prosthetic configuration, type of apposing dentition different implant angulation ranges, splinting of the implants, and the presence of bruxers, or diabetics patients. The dose effect of smoking is another important consideration.

It is important to stress that some publication included in this review have a short-term follow up period of upto 3 year. In a 12- month follow-up study, kanet et al. Fifth, most included studies are characterised by a low level of specificity, where the assessment of smoking as a complicating factor for dental implants was seldom the main focus of investigation.

Conclusion:

In conclusion , short implant-supported prostheses appear to be a valid option in the treatment of the atrophic jaw. High survival are rates [99,1%(95%CI: 98.8-99.4)] and low incidence of biological and biological complication are reported after a mean of period of 3.2=1.7yrs. surgical technique, implant location, and type of edentulism and prosthetic restoration did not affect short-implant survival. Improvements are possible, with rough-surfaced implant preferred. Randomized controlled trails and prospective studies with longer follow-up times and lager sample are necessary to validate the current findings.

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