

BENEFITS OF CERAMIC IMPLANTS IN DENTISTRY

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SUMMARY

With the growing expectations related to dental aesthetics and the awareness of morbidities and allergies related to metals, ceramic implants have been of great value in this regard. As they can align osseointegration similar to conventional titanium dental implants, mechanical resistance, less retention of bacterial plaque and biofilm around the implant, combined with an aesthetic similar to natural teeth due to their color being close to that of the original tooth roots, together with the absence of metals and their corrosion, thus making it possible to rehabilitate patients without generating greater morbidities.

Key words:

Ceramics; ceramic implants; dental implants.

INTRODUCTION

Over the years, the ways and means of replacing lost dental elements have been modernized, developing based on scientific research.

Modern dental implants are made from titanium or titanium alloys and are today considered the gold standard material in dental positions created by implants.

With the search for tissue improvements, reduced treatment time, lower morbidity related to metals and the high aesthetic demands of patients. Ceramic-based implants have been gaining more and more space in modern dentistry and have started to be used in challenging cases. aesthetic and also where there is a need for the absence of metals due to the patient's sensitivity or allergy.^{1,2}

DEVELOPMENT

The high aesthetic threshold is increasingly common in all aspects of health and medicine throughout the world. In rehabilitation with dental implants in the aesthetic zone, it has become a major challenge for dentists and thus the use of ceramic implants has become increasingly common. because in addition to offering osseointegration similar to titanium implants, ceramic implants have high mechanical resistance, less biofilm adhesion, gingival aesthetics similar to natural teeth, and are free of metal and corrosive products to the oral cavity.^{1,2}

In aesthetic areas, rehabilitation with dental implants is a great challenge, especially in patients with thin, thin gingival tissue, patients with a gummy smile or high smile line, and even more difficult in cases of bone resorption accompanied by gingival retraction and with exposure of the implants.²

Ceramic implants have a color similar to natural teeth, a characteristic that allows the transmission of light at the interface between the gums and the peri-implant component. In the case of metallic implants, this transmission of light allows the grayish color of the metallic components to be seen.^{2,3}

In addition to satisfactory aesthetic results, ceramic implants prove to be biocompatible, causing less tissue reaction than titanium implants. Studies have also shown that their

interaction with osteoblasts stimulates bone formation, thus ensuring better fixation of hard supporting tissues.⁴ In soft tissues, they favor the formation of a greater density of collagen fibers, thus contributing to a reduction in inflammatory infiltrates in the peri-implant pockets. Ceramic implants also present osseointegration similar to metallic implants with survival rates of 95.12%.^{1,2, 3.4}

Studies indicate that its choice provides less biofilm formation, fewer inflammatory cells, better gingival aesthetics, absence of corrosive products in the oral cavity and osseointegration similar to titanium.²

CONCLUSION

Ceramic implants offer a number of exciting benefits, particularly patient expectations for a metal-free rehabilitation alternative and excellent aesthetic appearance.³

In this way, it is possible to conclude that ceramic dental implants are clearly an alternative to conventional implants as they offer similar results with superior results in terms of aesthetics and in cases of hypersensitivity related to the use of metals and their corrosion in the oral environment.

1.NETO, Angelo. Scientific Article: Ceramic Implants, current aspects and future perspectives. Mettzer Blog. Florianópolis, 2020.

2.FREITAS, Pedro.Scientific Article: Zirconia Implants in dentistry: literature review.. Goiania, 2020.

3.Marcantonio Jr, Elcio. Scientific Article: Ceramic Implants x metallic implants. Implantnews. Sao Paulo:, 2020. 123 p.

4.Marcantonio Jr, Elcio. Scientific Article:Advantages and indications of zirconia implants. Implantnews. Sao Paulo:, 2023. 115 p.