

CASE REPORT

Comparison of Different Methods of Prosthetic Rehabilitation in Anterior Region

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ABSTRACT

Scope of work: The purpose of this work is the analysis and comparison of the various methods available for the realization of fixed restorations on natural teeth in the anterior sector with the presentation of some case report series.

Materials and methods: The methods used in relation to the clinical case, are the metal-ceramic, the galvan-ceramic, all-ceramic and porcelain veneers.

Results: It highlights indications and limitations of each of the methods proposed, emphasizing the prominent role of esthetics in the rehabilitation sector of the front.

Conclusion: The materials and techniques available, with proper clinical evaluation and to a timely therapeutic planning, are the basis of the rehabilitative ideal choice for each individual case, and they also depend on the achievement of clinical success.

Keywords: Cosmetic dentistry, Dental ceramic, Fixed prosthesis, Porcelain veneers.

How to cite this article: Crispino A, Pisano G, Fortunato L. Comparison of Different Methods of Prosthetic Rehabilitation in Anterior Region. *Int J Prosthodont Restor Dent* 2015;5(4):110-113.

Source of support: Nil

Conflict of interest: None

INTRODUCTION

In recent years, the fixed prosthesis has evolved considerably with the introduction of new materials, tools and techniques. The proven reliability of adhesive techniques and the ability to recover teeth severely compromised due to advances in endodontic and periodontal therapy, have also greatly changed the setting of the treatment plan in fixed prosthesis.¹

Esthetics certainly plays a major role in a prosthetic rehabilitation for the patient and is often the first requirement in the rehabilitation sector of the front.^{2,3}

DISCUSSION

In the concept of esthetic dentistry and imitation of nature leads to the need to imitate what is the normal anatomy of the dental patient in keeping with the age, sex and personality of the same. They can, therefore, be considered 'esthetic' also prosthetic rehabilitation presenting abrasions, pigmentation or special colors, if they harmonize perfectly with the original dental anatomy of the patient (Figs 1, 4, 8, 9 and 13).

For this reason, often a prosthetic rehabilitation assumes the characteristics of a real 'esthetic rehabilitation'.^{4,5}

It is of primary importance in this context not just focus on one aspect and conceive the dental implants as an autonomous entity because the clinical reality is not only in the restoration of a tooth, but also in its esthetic integration with 'environment, which includes not only the periodontal and occlusal relationships, but also the perioral structures' (Figs 2, 3, 5, 10 and 14). Only the esthetic integration of the implant with the surrounding environment can ensure a basic requirement of the prosthetic rehabilitation:⁶ the natural, or the adaptation and restoration, not the artifact is clearly detectable, like the principle that 'the best prosthesis is the one that does not notice its presence.'

The overall harmony of the final result is also linked to the subjective criteria, and depends on the integration of all the esthetic parameters with a smile, face shape, age and personality of the patient.^{7,8}

Certainly, the development of innovative techniques and materials for the fixed prosthesis enables the prosthetist better and better optimization esthetics (Figs 6, 7, 11, 12 and 15).⁹



Fig. 1: Initial examination

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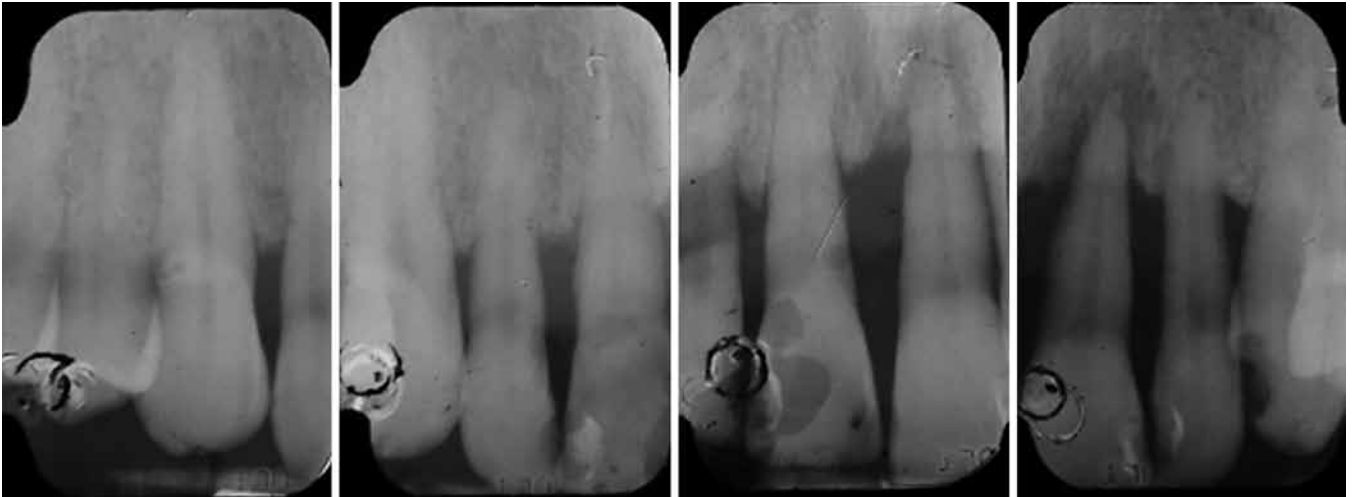


Fig. 2: RX images



Fig. 3: Tooth preparation



Fig. 4: Final case



Fig. 5: Initial examination



Fig. 6: Tooth preparation



Fig. 7: Final case

For this purpose, we will compare various methods: metal-ceramic, galvan-ceramic, all-ceramic and porcelain veneers. Each of these methods can be used very efficiently only by knowing all the characteristics and the signs and the proper choice of the method, with proper

clinical evaluation and to a timely therapeutic planning, disregard to achieving success.

Below we will analyze some cases explaining some methods for comparing shots often seen in fixed prosthesis.

Metal-Ceramic

A 52 years old man performed physical examination and X-ray is performed controls showed the presence of severe periodontal problems, particularly in the upper front, with loss of bone support and mobility 21.

Setting the treatment plan envisaged the extraction of 21, 11, 12 and 22 of the root canal and the construction of a fixed partial denture metal-ceramic 12 to 23 view mobility status due to reduced periodontal support.



Fig. 8: View of new smile



Fig. 9: Initial examination



Fig. 10: Tooth preparation



Fig. 11: Final case



Fig. 12: View of new smile



Fig. 13: Initial examination

Galvan-Ceramics

A 30 years old woman performed physical examination revealed a severe discoloration from previous endodontic treatment longstanding localized to the upper central incisors. He opted for the construction of two galvan-ceramic crowns.

All-Ceramic

A 44 years old woman who had two fixed partial dentures metal ceramic 11 to 13 and 21 to 23, in addition, the examination revealed the lack of 24.

Having performed the radiographic controls is opted for the construction of a fixed partial denture 11 to 13, of two single crowns on 21 and 22 and of a fixed partial denture 23 to 25 with methodical Lava zirconium oxide.

Porcelain Veneers

A 54 years old man performed physical examination and X-ray is performed controls showed the presence

of marked periodontal problems, also the patient complained of pain in the group anamnesis lower incisor. The setting of the treatment plan for the upper jaw where she pointed out the absence of the 23, he opted for the construction of a fixed partial denture-ceramic zirconium oxide Lava 22 to 24 and the construction of three porcelain veneers to 12, 11 and 21.

CONCLUSION

In the light of the above, we can conclude that for what concerns the choice of restorative materials most suitable, within the fixed prosthesis, and in particular as regards the available alternatives for the realization of an esthetic restoration of the front sector, between the various methods, the veneers are the highest esthetic expression obtained, by virtue of their characteristic translucency, followed by ceramic materials is that die-feldspar (jacket crowns) and followed by ceramic materials with



Fig. 14: Tooth preparation



Fig. 15: Final case

reinforcement structures (core) aluminum or zirconium presenting an inner core opaque part that locks in the passage and the diffusion of light, but is currently allow also the realization of multiple restorations connected. This possibility is to provide for a rapid spread of these methods.¹⁰

The galvan-ceramic, in turn, is, after the all-ceramic, the more esthetic alternative to metal-ceramics because the yellow color of the internal structure allows a better camouflage effect of the ceramic coating compared to traditional metal-ceramics. The latter are in scale objective esthetic level lower but remain an increasingly valid.¹¹

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