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RESEARCH ARTICLE

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## THE USE OF COMPOUND AND PORCELAIN RESIN FACET: INDICATION AND CONTRAINDICATION

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### ABSTRACT

The present study will address how the use of resin veneers and porcelain veneers is defined, the indication and contraindication of each of the options, advantages, and limitations of each option. For the construction of the work, research was carried out on the website of the Regional Portal of the VHL Dentistry on the subject. The indication of treatment with direct veneers, in composite resin, would be for teeth with changes in color, shape, and other conditions that may affect the function and aesthetics of the dental element. Some contraindications for this technique, are related to the dentition itself. Porcelain laminate veneers are indicated on teeth with color change, in the form of conoid teeth, with change in surface texture, in size correction. Porcelain veneers are contraindicated when the preparation does not allow for the preservation of at least 50% of the enamel. The advantages of using composite resin are the procedure usually performed in a single session, easy, fast, safe, and effective repair. The advantages of using porcelain veneers are the fact that they are formed from a biocompatible material, have high durability, preserve color. It is important to emphasize the importance of clinical evaluation and to indicate the best veneer option to the patient.

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## INTRODUCTION

Aesthetic appearance has always been one of the concerns of the human being, and this has led him to a continuous search for an appearance that expresses harmony, naturalness, and expressiveness. We live in a time when the performance of restorative procedures has contributed admirably to the resolution of aesthetic issues, where people increasingly seek dental clinics for something aesthetic rather than something related to a health problem. We currently have a large number of materials and techniques on the market for aesthetic purposes in the field of dentistry (Milhomem *et al.*, 2017). The growing search for aesthetic treatments in dentistry is also accompanied by another reality, which is the growing number of treatments with unsatisfactory aesthetic purposes since some procedures to recover the aesthetics of the tooth can be invasive and aggressive and thus end up removing important parts. of the tooth structure. Faced with this problem, dental veneers emerged, which are

a great option for those seeking to recover tooth function without damaging its structure and, still, have its aesthetics preserved or even improved (Francci *et al.*, 2012). Aesthetic dental veneers are partial restorations that aim to cover buccal and proximal surfaces to cover imperfections and align the teeth. In some situations, they also recover the incisal faces of the anterior, maxillary, and lower. Veneers are an aesthetic restorative choice that, in addition to minimizing necessary tooth wear during the tooth preparation phase, provide an excellent smile harmony. Currently, we work with two basic types of veneers, which are ceramic veneers and composite resin veneers, and it is up to the professional to evaluate the case of each patient and indicate the best option, know how to indicate and use after a clinical evaluation of the amount and quality of the patient's dental structure. The present study will address how the use of resin veneers and porcelain veneers is defined, the indication and contraindication of each of the options, advantages, and limitations of each option, through a narrative literature review.

**Justification:** As dental procedures for aesthetic purposes grow, the need arises for the dental professional to train himself so that he can achieve the desired aesthetic purpose of each patient, but more than that, the professional needs to understand the limitations and purposes of each aesthetic procedure. and exposing to the patient that not always what he wants can be accomplished and exposing the risks he runs if he wants to do it. The study of the subject brings to us academics and dentists, theoretical knowledge about what are the veneers of resins, the existing types, and the purposes of use of each one, individually evaluate each patient and verify their particularities, so that the procedure to be performed is successful and pleases the same, in a way that establishes harmony and naturalness to the smile.

## OBJECTIVES

**Main Objectives:** Discuss the use of composite resin and porcelain veneers: indication and contraindication.

**Specific Objectives:** Indicate or contraindicate the use of resin or porcelain veneers.

- Expose the advantages and disadvantages of each type of facet.

## METHODOLOGY

For the construction of the work, a narrative review of the literature was carried out, which included the theme: The Use of Composite Resin and Porcelain Veneers: Indication and Contraindication. Seeking to achieve the research objectives, research was carried out on the website of the VHL Odontologia Regional Portal (Virtual Health Library) on the subject. The electronic databases that were used to gather the articles are LILACS (Latin American and Caribbean Literature in Health Sciences), and MedLine (Online System of Search and Analysis of Medical Literature), through the VHL website (Library in Health). The search was carried out using the health descriptors: Composite Resins, Dental Porcelain, Therapeutic Uses, and Esthetics Dental. The Boolean operator used was "AND". The inclusion criteria for the articles were: only full-text articles, articles only in Portuguese and English, and articles that address the topic.

Exclusion criteria were: articles in languages other than Portuguese and English, articles outside the databases, articles whose title does not match the theme, and publications that do not have the full text for reading. After carrying out the searches and research of the articles, we obtained a total of 7 articles, which match the theme of the work, the material found was read and important data was extracted according to the proposed theme.

## LITERATURE REVIEW

**Indication and contraindication for composite resin veneers:** Resin veneers are another option compared to porcelain veneers, they are types of direct or indirect restorations that cover the anterior part of the teeth, improving the harmony of the smile. Direct restorations, in composite resin, are a viable option for procedures in the anterior region due to the possibility of aesthetic alignment and reconstruction of the teeth, the discoveries, and knowledge of dental tissues, allowed the development of composite resins with better adaptations to the tooth, allowing a more natural appearance to the restored teeth (Cunha, 2013). The indication of treatment with direct veneers, in composite resin, must evaluate some essential factors, in order to make a reliable diagnosis of the patient's real condition, such as quantity and structural quality of the remaining dental tissue, degree of darkening, the relationship between the affected area and biological extensions, occlusion, and level of oral hygiene of the patient (González, 2012). Other indications would be for teeth with changes in color, shape, the texture of the buccal surface of apparent teeth, conoid teeth, micro teeth, diastema closure, structural losses caused by caries, corrosion, some situations of fracture of the dental

element, in addition to being a treatment option in cases where tooth whitening and other procedures have not achieved the desired restoration objective (Milhomem, 2017). There are also some contraindications for this technique, which are related to the dentition itself, which are the cases of teeth with great structural losses, absence of enamel in the cervical portion, occlusal disorders, severe crowding, too much darkening, gingivitis, periodontitis; and some related to patient cooperation, which are: the high risk of caries and poor hygiene (Cunha, 2013).

**Indication and contraindication for porcelain veneers:** The use of porcelain for dental purposes has become one of the best ways to treat and solve structural problems in teeth. Several factors contribute to their use, mainly the fact that they are chemically and mechanically compatible with the teeth, with a low level of rejection, in addition to having low thermal and electrical conductivity, as well as resistance to compressions and excellent structure to be able to simulate teeth in look as natural as possible. Porcelain veneers are indicated for teeth with color change due to tetracycline, in the form of conoid teeth, with change in surface texture, length correction, alignment of one or several teeth, reduce or close diastema, restore fractured teeth, In special cases to restore endodontically treated teeth, enamel hypoplasia, teeth that did not respond to bleaching and teeth with fluorosis or imperfect amelogenesis, porcelain veneers are widely used in teeth that were previously aesthetically compromised (Cunha, 2013). Porcelain laminated veneers are contraindicated when the preparation does not allow for the preservation of at least 50% of the enamel when the margins are not fully located in the enamel; people with bruxism and parafunctional habits; patients with high caries activity; for teeth that have multiple and/or wide restorations; end-to-end occlusion, crowded teeth, excessively proclined teeth, teeth with short clinical crowns and patients with poor oral hygiene (Gomes et al., 2008).

**Advantages, disadvantages of composite resin veneer:** The advantages are: that the procedure can be done in a single session, easy, fast, safe, and effective repair. The dentist controls the final veneer shape and color. It has a reduced cost. More conservative preparation than the preparation for indirect veneers. No laboratory steps. It does not require provisional impressions (González, 2012). The disadvantages are that direct-use composite resins have lower wear resistance than tooth enamel. They are less resistant than porcelain veneers. Composites are more vulnerable to browning and wear. Less color stability than porcelain veneers. All current composite resins exhibit polymerization shrinkage. It can generate cracks in the enamel and/or break the adhesive bond with the dentin (Cunha, 2013).

**Advantages, disadvantages of porcelain veneer:** Clinical studies prove several advantages in the use of porcelain veneers, such as being a biocompatible material, having great adhesive strength, in addition to having a smooth surface that allows the recovery and good maintenance of periodontal health by reducing the accumulation of bacterial plaque, as well as presenting high resistance to the oral environment and great similarity with the color of natural teeth (Neto et al., 2019). They have excellent durability, preserve the color, the procedure performed is less invasive, the veneers are more resistant to cracks and breaks, are easy to clean by the user, it is compatible with the connective tissue close to the tooth, the porcelain veneers have an excellent thermal expansion coefficient that is very close to dental structures and has many laboratory research carried out (Neto et al., 2019). Some of the disadvantages of porcelain veneers are in their preparation because to apply them to patients, generally, a lot of previous training is required, as their accommodation is more complex. In cases of extremely darkened teeth or crowded teeth, it is very difficult to achieve excellent esthetics, in addition to having a high cost (Neto et al., 2019). The procedures required for fixing porcelain veneers are more time-consuming. Porcelain veneers are extremely fragile and delicate, any carelessness before fixing can crack them, performing a temporary restoration is very difficult and requires patience, prior knowledge, and a lot of skill (Rolim et al., 2013).

## DISCUSSION

The use of veneers by the dentist requires specific techniques and theoretical-practical training for its good result, and the indication for the patient depends on a previous clinical evaluation, according to the articles analyzed this point proved to be a concrete opinion. of all authors studied. The expectation within dentistry is that more and more veneers will improve through technological purposes and consequently increasingly similar to natural teeth, as we know that a patient's smile is a factor directly responsible for their self-esteem, when the person looks in the mirror and is happy with what he sees (Neto et al., 2019). Each type of veneer has its advantages and disadvantages, and the authors of the articles are punctual in this matter, although porcelain veneers currently have greater space in the market, they are not always indicated for all cases, in the same way, composite resin veneers have its particularities. According to Cunha (2013), the porcelain veneer has gained market due to its similarity to the natural tooth, being more than the resin veneer, on the other hand, the resin veneer is chosen due to the fact that it is easier to be installed. In the study carried out by Cunha (2013), it was proven that dental veneers made of porcelain have some disadvantages the possibility of corroding antagonist teeth, and their manufacture it takes more time, which leads to a high cost. The composite resin has disadvantages, a greater degree of instability of the tooth color with the veneer applied and difficulty in disguising darkened substrates, it has a porous surface, and together with that ineffective polishing, this causes an infiltration at the edges of the tooth more when compared with porcelain. Gomes et al. (2008) concluded that the visual characteristics of each veneer are of paramount importance in restorations in anterior teeth, but for restorations in posterior teeth, restorations with high flexural strength are required due to the pressure that is exerted on these teeth during chewing. Finally, it is important to emphasize that the dental veneers, regardless of which they are, are dental treatments, where the aesthetic purpose is not the most important, although it is taken into account, as this type of treatment seeks correction for dental problems to rehabilitate the tooth to its original function (González, 2012).

### Final Considerations

In recent years, technological evolution has gained space in the dental environment, mainly in the development of techniques and ceramics for the realization of dental veneers, seeking to improve the materials that are used, to obtain resistant and lasting restorations, with minimal wear on the teeth.

During preparation and as a result an increasingly natural-looking appearance. Composite resin veneers and porcelain veneers have been growing in the market, and each one has an indication or contraindication for use, it is not possible to define for sure which is the best, as this decision is based on the clinical condition that the patient is in. who will receive the restorations. That is why the dental surgeon must seek to specialize and know the appropriate techniques, the correct way to perform each procedure because oral health affects people's self-esteem, and any unwanted result for patients can cause problems for the dentist. It is important to emphasize the importance of clinical evaluation and to indicate to the patient the best veneer option and not the most profitable, exposing the risks, advantages, and disadvantages of each option.

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