

MINIMAL INVASIVE COSMETIC SOLUTION FOR DISCOLORED TEETH

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Abstract

Porcelain Laminates are common in creating new smiles and smile makeovers.¹ Porcelain laminates are thin shells of porcelain that are designed to seat on the front of teeth, to improve tooth color or tooth shape. Porcelain by its very nature is brittle, but when bonded to tooth structure becomes increasingly strong.² Although not as conservative as bleaching, porcelain laminates are still more conservative than many other procedures that have been done in the past to improve dental esthetics. This paper describes the minimal invasive technique (Porcelain laminates) for enhancing smile value of the patient.

Introduction

With porcelain Laminates, you can have the smile of your dreams in a very short period of time.¹ Teeth enamel discoloration can be caused by staining, aging, or chemical damage of teeth too. Some of the more common causes of teeth discoloration are medications, coffee, tea or cigarettes. People who drink significant amounts of cola soft drinks can experience similar stains.³ The tooth laminates are not the only alternative for all esthetic abnormalities but are truly a remarkable restoration when they are the treatment of choice. Tooth laminates are very thin pieces of specially-shaped porcelain or plastic that are cemented over the front of your teeth with little or no anesthesia needed. The tooth laminates is very strong and durable, and come in colors that will brighten any dark teeth without the worry.² Once placed your tooth laminates are very strong and will resist most of the forces placed upon them by a normal diet. Porcelain has great crushing strength but poor tensile strength. Therefore, you should avoid anything that will tend to twist the veneers of them changing color. The maintenance of your tooth laminates is relatively simple.⁴ Considering these advantages in mind this paper describes how by using this minimal invasive technique of porcelain laminates smile of the patient with discolored teeth was improved.

CASE REPORT

A 43 years old female patient reported to the department of prosthodontics in Sudha Rustagi College of Dental Sciences And Research with the chief complaint of discoloured teeth. Intraoral examination revealed dark brown stains on all the teeth. The discolouration was due to fluorosis. The patient used to avoid social gatherings and even smiling as she was very conscious about aesthetics. History revealed patient had undergone an inoffice bleaching with almost no end result. Finally porcelain laminates were decided to be fabricated for anterior six maxillary and mandibular teeth as only these teeth were falling in the aesthetic zone. Teeth were then prepared by labially and incisally reducing the tooth surface by 0.7-0.8mm, interproximal contacts were kept intact.⁵ Impressions were made in addition silicone impression material. Temporaries were fabricated by the direct technique in the patient's mouth with pretemp-III. The

temporaries were not given individually instead they were joined together for better retention and were cemented with eugenol free zinc oxide cement. Then the final porcelain laminates were tried in the patient's mouth to check the fit and aesthetics. These laminates were then cemented with a temporary luting cement for the final approval of the patient. When patient was absolutely comfortable with the laminates, they were retrieved from the mouth and thoroughly cleaned to remove the temporary luting cement. Finally the laminates were cemented one by one with the veneer cement which is a resin based light cure cement. The advantage of using a light cured cement was that it gives ample working time for seating the laminate onto the tooth. Before the application of the veneer cement the laminates were etched with 9% hydrofluoric acid for one minute. Then it was thoroughly irrigated with water and air dried. Silane coupling agent was then applied on the laminate for one minute and air dried. Prepared teeth were then etched with 33% ortho phosphoric acid. A thin layer of veneer cement was then applied on the laminate and finally seated onto the prepared tooth surface⁶ and cured for 10 seconds only so as to remove excess cement. Once the excess cement was removed, final curing was done for 30 seconds. Excess cement should be removed carefully as it can interfere with complete seating of the laminate. After final seating of all the laminates patient had confident and sparkling smile.

Discussion

Once placed, dental laminates are typically the kindest restoration to the gum tissues that we currently have in our prosthetic armamentarium. Do not be afraid that you will damage your tooth laminates by either flossing or brushing. Any non-abrasive tooth paste is acceptable. A good home care regimen will insure the esthetic success of your tooth laminates restorations for years to come.

References

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Fig.1 : Picture shows discolored teeth



Fig.2 : Teeth prepared for laminates



Fig. 3 : Post-cementation