Componeers Crowning Glory of Esthetic Dentistry

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ABSTRACT
Componeers are prefabricated composite veneer system. This article gives a brief review of recently introduced componeers-a milestone in veneer technology.

Keywords: composite restorations; componeer; Esthetic dentistry; lumineer; micro-hybrid

Introduction
Veneering anterior teeth is a well-established technique, which was brought to Dentistry by Dr. Pincus as early as 1937.1 From the mid-1970s, boosted by the development of composites and adhesive techniques, various concepts emerged including direct composite restorations, prefabricated composite veneers and of course, individualized porcelain indirect veneers.1 The prefabricated composite veneer option was however soon abandoned due to former technological limitations. Recently, the creation of a new shade guide comprising enamel shells revitalized this "old idea," and in combination with a high pressure and temperature molding process followed by a laser surface vitrification, a novel, improved composite prefabricated system.1 This article gives a brief review of recently introduced componeers-a milestone in veneer technology.

Recently introduced componeers are polymerized, prepared, radio-opaque, highly filled nano-hybrid composite enamel shells that look like teeth. Componeers are permanently fixed to the upper front and/or lower front teeth to conceal cosmetic imperfections. Case selection is the most important aspect for prognosis.

Indications: The clinical indications of Componeer are restoration therapy for caries, optimization of old restorations, extending incisors, malpositioned teeth, tooth fractures, tooth discoloration, incorrect shading, anatomical malformation, diastema, attrition, abrasion, erosion and cosmetic correction. The contraindications are in case of severe untreated bruxism and active caries.

The clinical procedure consists of correct diagnosis and treatment plan, including stabilization of any active disease processes. The perfectly matching componeer is selected using the bluish transparent contour guides provided with the kit. The extremely thin veneers (as thin as 0.3 mm) allow a high level of conservation of hard tooth substance during preparation.

Enamel and dentin shades are selected with shade guide prior to isolation, ideally under daylight lamp. Since componeer is primarily bonded to enamel, only one layer of one coat bond adhesive is applied to componeer with brush. The composite is distributed on the tooth using the MB5 modeling instrument. The body composite is stiff enough to hold the componeers in place without the tendency for them to float away, which would happen if a flowable composite were used. The placer is used for stress-free application of the componeer to its final position, cured, finished and polished. Multiple componeers can also be placed at the same time, using strips of clear matrix for separation.

Designing a smile requires artistry and analysis. The subjective element of smile design may require years of experience for the dentist to develop the eye and talent for producing beautiful smiles. So far three techniques have been practiced in dentistry for veneering. Direct veneering or correction with composite, direct ceramic veneering with veneers prepared chair side or indirect veneering with veneers prepared in the laboratory (thinner/lumineers).3

Direct composite additions with conventional hand layering technique or direct composite veneers have often been heralded as a more conservative alternative to porcelain, and with the advent of micro hybrid and Nano-hybrid composites, the finishing and polishing of these restorations can rival that of porcelain. Although they are found to be quick and economical, obtaining optimal results with direct composite restorations can provide a technical challenge in certain circumstances, particularly when treating multiple teeth.1 In addition; wear-and-tear, degradation of the material over the course of time, loss of surface shine and cohesive cracks in the material, lack of strength and longevity needs desire for etched porcelain laminates offering benefits of increased strength, color, stability, and biocompatibility for a veneering material using composite merely as a luting agent.4

Direct composite veneers are also difficult concerning the processing and color composition where you need to create viscous surface structures. Adapting and modeling the composite correctly without creating air bubbles – gaps and voids – is important. A lot of the natural layering materials of aesthetic composites are a bit stiff. This can be useful for modeling, but it makes adaptation between the various layers of composite relatively complex.5

Also with the ongoing development of porcelain material, the etched porcelain restorations have almost replaced direct bonding in most clinical situations and have become more popular amongst clinicians and more convincing to the patients.6,7 But this demands finest laboratory assistance and cost plus time required for the procedure increases.

Componeer represents an additional category, which includes pre-shaped, prepared veneers of enamel-colored composite in various sizes that allow the dentist to prepare direct composite veneers without having to model the basic shape of
the top enamel layer. The facial anatomical shape template in the form of a thin composite shell simplifies direct veneering of one or more front teeth and premolars. The extremely thin veneer coatings from 0.3 mm allow a high level of conservation of hard tooth substance during preparation. The shiny and naturally designed surface adds a look of vitality to the restoration. The option of direct placement of componeers has many advantages: direct chair side technique in only one appointment, minimally invasive, very little removal of healthy tooth structure (conservative tooth preparation), simple and versatile application, no impression required, minimal application time needed (approximately 90-minutes for six direct veneers), cementation using high quality permanent veneering material, less expensive than lab-fabricated ceramic veneers, highly polished surface giving long-lasting, natural looking aesthetic clinical results, shine can be refreshed by polishing at any time, unlike porcelain veneers, they can be easily repaired.

The Componeer is an affordable and less time consuming alternative for patients who are not financially prepared for porcelain veneers, or for clients who want to spend less time in the dental chair with the same outcome. These incredibly thin tooth facings, almost like a false fingernail, can be bonded and cemented on to the teeth directly. For tooth fractures, extensive caries, poor restoration or discoloration, it provides an ideal customized solution. Componeers’ direct composite resin stain-resistant veneers are durable and long-lasting. They require minimal or no tooth reduction and can be easily repaired. These polymerized, pre-fabricated nano-hybrid-composite enamel-shells, combine the advantages of direct composite restoration with those of laboratory-made veneers.

It was enlightening to see how so many minor intricacies can impact these cases to look satisfactory in the end — not just appearance, but comfort and balance as well. It can be proudly said we are on the cutting edge of esthetic excellence.

References

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