Introduction: Restoring a single discolored tooth in the anterior region and achieving ideal esthetics is a demanding task and a clinical challenge for the dental practitioner. Tooth discoloration can be caused by various reasons including intra-pulpal hemorrhage, dental trauma or endodontic treatment and can be confronted with different treatment plans. Home or in-office bleaching for vital teeth and internal bleaching for non-vital teeth, should be the first choice of treatment, being the least invasive techniques. However, if a bleaching procedure cannot be implemented or has been applied without a satisfactory outcome, other conservative options should be considered, such as resin composite or ceramic veneers. Resin composite veneers have been established as one of the most commonly used restorative options due to their improved mechanical and surface properties, ability to accurately emulate the natural dental characteristics in a direct manner. Composite resins have inherent limitations in their opacification ability, especially when increments are very thin. Thus, in order to match the chromaticity of the adjacent teeth, the use of opaquers can be suggested. Opaquers are highly pigmented resinous materials, containing metal oxides that are responsible for their potent opacification ability, characteristic hue and saturation. Thin layering of opaquers and/or tints can mask the discolored substrate and enhance the biomimetic appearance of the final composite veneer, especially when it comes to minimal tooth preparation. The purpose of this e-poster is to illustrate the clinical steps of a minimally invasive, direct approach to anterior single tooth discoloration with the aid of resinous color modifiers.

References:

CASE 1

Fig. 1. Discolored #11. Frontal view
Fig. 2. Discolored #11. Lateral view
Fig. 3. Initial smile. Frontal view
Fig. 4. Initial smile. Lateral view

Fig. 5. Shade selection
Fig. 6. Digital processed contrast and brightness in order to highlight chromatic characteristics of the tooth

Fig. 7. Opaquer application (Pink Opaque, Cosmedent USA)

Fig. 8. Use of a flat painter’s brush for the uniform application of the opaque (Da Vinci, Series 374, Flat No. 4)

Fig. 9. View of the second layer of the photopolymerized opaquer

Fig. 10. Stratification of A2 body-dentin shade and formation of lobes (0.5mm) (Filtek Supreme Ultra, 3M ESPE AG)

Fig. 11. Reproduction of the halos effect with translucent shade and blue tint (Ice and Chroma Effect Shades, Inspiro, Edelweiss, Switzerland)

Fig. 12. Reproduction of the enamel layer with A1 Enamel shade (0.3mm) (Venus, Heraeus Kulzer, Hanau, Germany)

Fig. 13. Final frontal view
Fig. 14. Final lateral view
Fig. 15. Final smile. Frontal view
Fig. 16. Final smile. Lateral view

CASE 2

Fig. 1. Discolored #11. Frontal view
Fig. 2. Discolored #11. Lateral view
Fig. 3. Initial smile. Frontal view
Fig. 4. Initial smile. Lateral view

Fig. 5. Shade selection
Fig. 6. Digital processed contrast and brightness in order to highlight chromatic characteristics of the tooth

Fig. 7. Opaquer application (Ice and Chroma Effect Shades, Inspiro, Edelweiss, Switzerland)

Fig. 8. Use of a flat painter’s brush for the uniform application of the opaque (Da Vinci, Series 374, Flat No. 4)

Fig. 9. View of the second layer of the photopolymerized opaquer

Fig. 10. Stratification of A3 body-dentin shade and formation of lobes (0.5mm) (Venus, Heraeus Kulzer, Hanau, Germany)

Fig. 11. Reproduction of the halos effect with translucent shade and blue tint (Venus, Heraeus Kulzer, Hanau, Germany)

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