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Two years of experience with a veneering technique using veneers based on polymer material with ceramic filler

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Background: in the recent years, CAD/CAM technology in combination with zirconia ceramic has gained popularity in implant dentistry. Zirconia frameworks and veneering porcelain meet the demands for aesthetic results. However fractures of the veneering porcelain (chipping) are the most common technical problems. Different reasons seem to be responsible for this phenomenon. Veneers based on a polymer material with ceramic filler seem to avoid these fractures and maintain excellent aesthetic results. The veneering line comprises multi-layer veneers for life-like/anatomical teeth with custom shade characterisation and accessory materials and a bonding system in perfectly matched shades. The cross-linked acrylate ensures resistance to plaque accumulation and the ceramic microfiller, embedded in the polymer matrix increases the abrasion resistance of this material, which comes very close to that of natural teeth. Occlusal adjustments are easy to perform, so that these restorations can also be used for CMD patients. These veneers can be used for zirconia and metal frameworks..

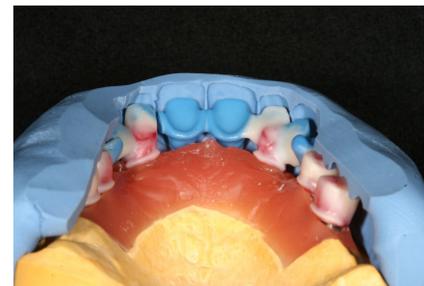
Method: 15 patients received implant supported restorations using these veneers (visio.lign, Bredent, Germany). There was one full arch restoration in the maxilla, two full arch restorations in the mandibula, two FPDs (3 units) in the anterior maxilla and ten FPDs (3 units) in the lateral mandibula. For eight FPDs zirconia frameworks were used. The other restorations were made with non precious metal frameworks. All patients had a 3 month control up to two years.



Wax-up with anterior and posterior veneers



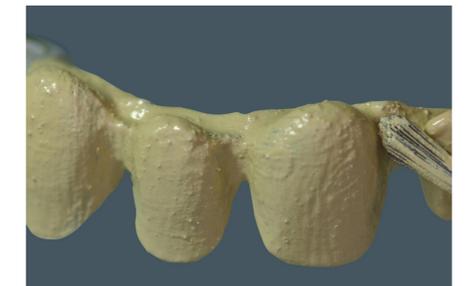
Silicon key with veneers



Silicon key with wax framework



Non precious metal framework



Metal framework with opaquer



Fixation with combo.lign (dual-hardening)



Final restoration with pink veneering



Final restoration frontal view



Intraoral view with 6 Atlantis abutments



Restoration with temporary cement



Palatal view



After 2 years in function



Example



Example



Example

Results: the use of this veneering technique in 15 patients with 8 zirconia and 7 non precious metal frameworks no mechanical problems occurred in a period of two years. There were also no problems with the aesthetic outcome, especially with a discolouration at the edge of the veneers. All patients were satisfied with the aesthetical results and with the chewing comfort.

Conclusion: our clinical results justify the further use of this veneering system and seem to be an alternative to the veneering technique with porcelain specially in patients with CMD symptoms.

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