



A novel protocol for predictable placement of prefabricated veneers



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Abstract

Prefabricated veneers promise good esthetics and surface quality, however they fail to present a predictable clinical placement protocol. The manufacturing companies of prefabricated veneers propose a single appointment procedure without the ability to realize a mock up, giving the opportunity to the patient to visualize the desired final result.

A novel 2-appointment protocol with a laboratory step was designed in order to be able to achieve: (a) a mockup, (b) a silicone tooth reduction guide and, (c) a controlled veneer placement following the mock up.

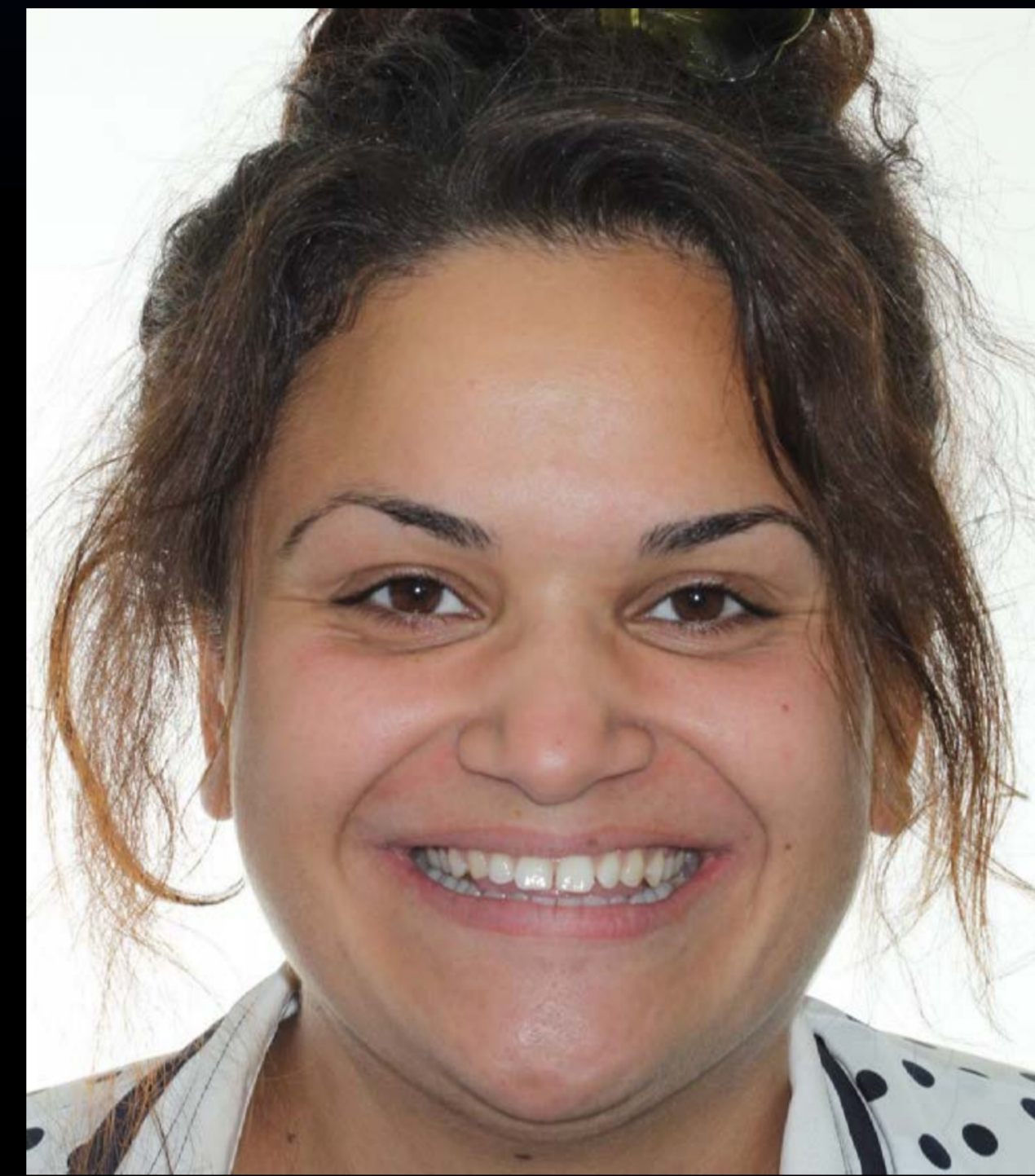
During the first appointment, photographic documentation (1) and initial impressions are taken to evaluate the case and create a personalized treatment plan. The size of the prefabricated veneers is selected by applying the Sizing Guide on a stone model. Depending on the clinical situation, a combination of sizes can be used. The selected prefabricated veneers are then adapted (2) to the stone model by minimally preparing the gypsum teeth. After finishing the preparation of the gypsum teeth, silicon reduction keys (2) are created for transferring these preparations intraorally. This is a clinical sensitive and time consuming technique, however, it preserves sound tooth structure by reducing only the necessary tooth volume. Consequently, the prefabricated veneers are stabilized on the prepared stone model with wax and silicone transfer keys are fabricated. Additionally a silicone mold is fabricated for the Mock up realization. Finally, the shade for the luting composite resin is selected (2).

During the second appointment, the mock up (3) is realized first. After patient approval of the designed treatment plan, the rest of the procedure is totally predictable using the aforementioned silicon keys for tooth reduction (4) and veneer placement (5). The veneers are luted with nanohybrid composite resin and special attention is given to the interproximal areas (6).

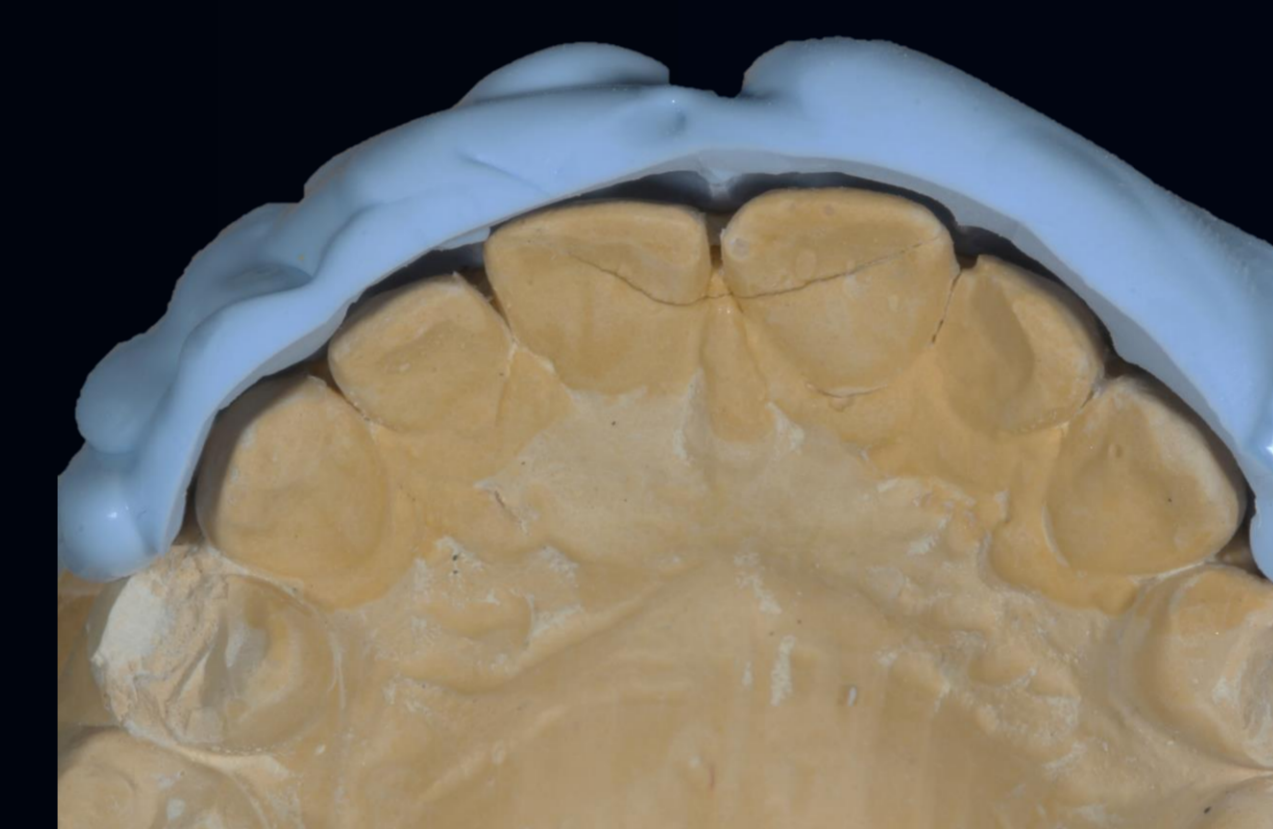
Conclusion

This novel protocol was established in order to resolve the limitations in restoring the anterior teeth with prefabricated veneers. The clinical time of the procedure is reduced and the precision of the prefabricated veneers when they are applied to the prepared teeth is optimized (7). Additionally, it is very important for the clinician and the patient to be able to visualize the final result of the rehabilitation via a mock up procedure. Finally the tooth reduction guide and the veneer placement guide help for minimal tooth structure removal in a predictable preplanned way.

1. Initial situation



2. Laboratory procedure and shade selection



3. Intraoral mock-up



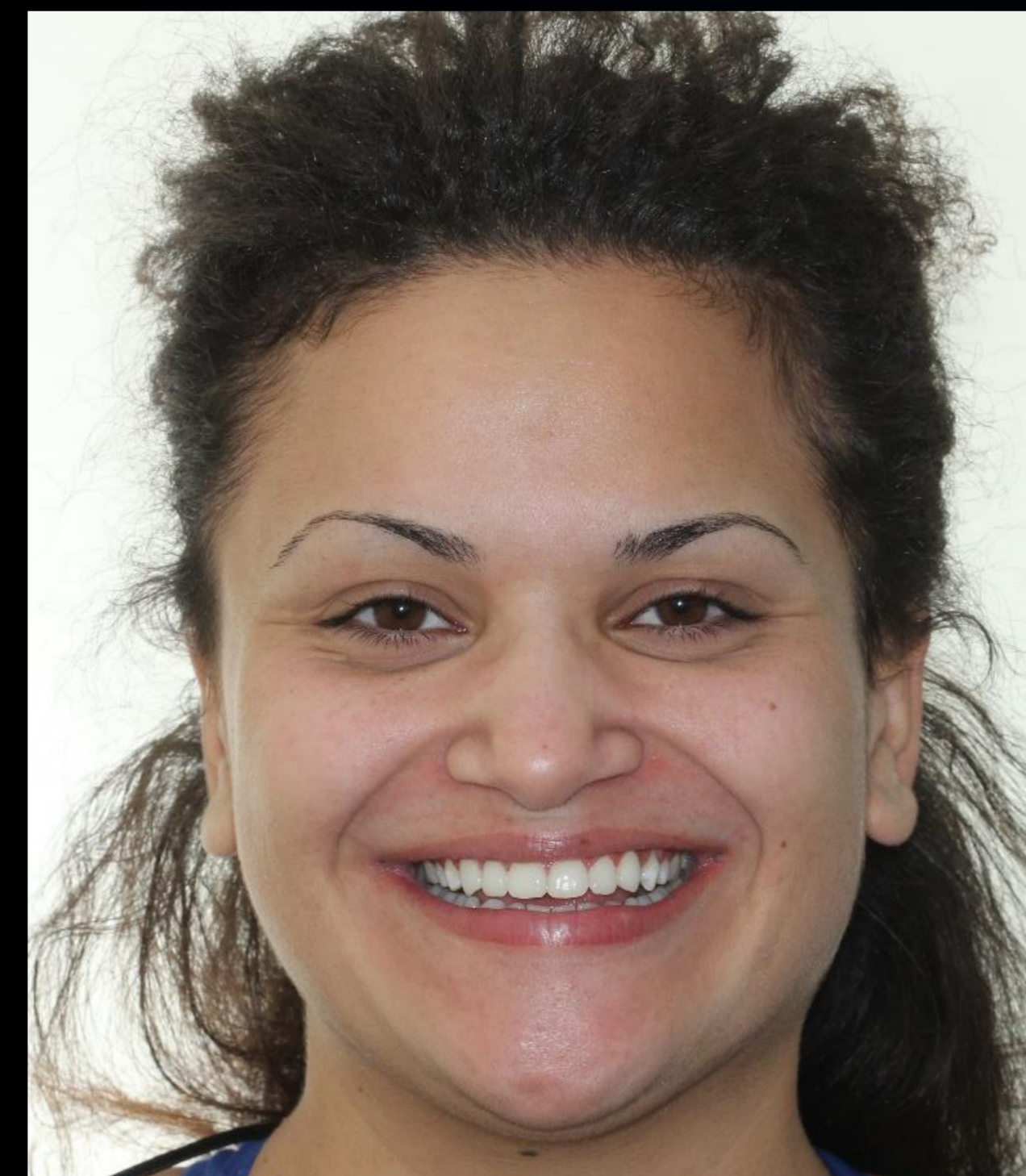
4. Teeth preparation



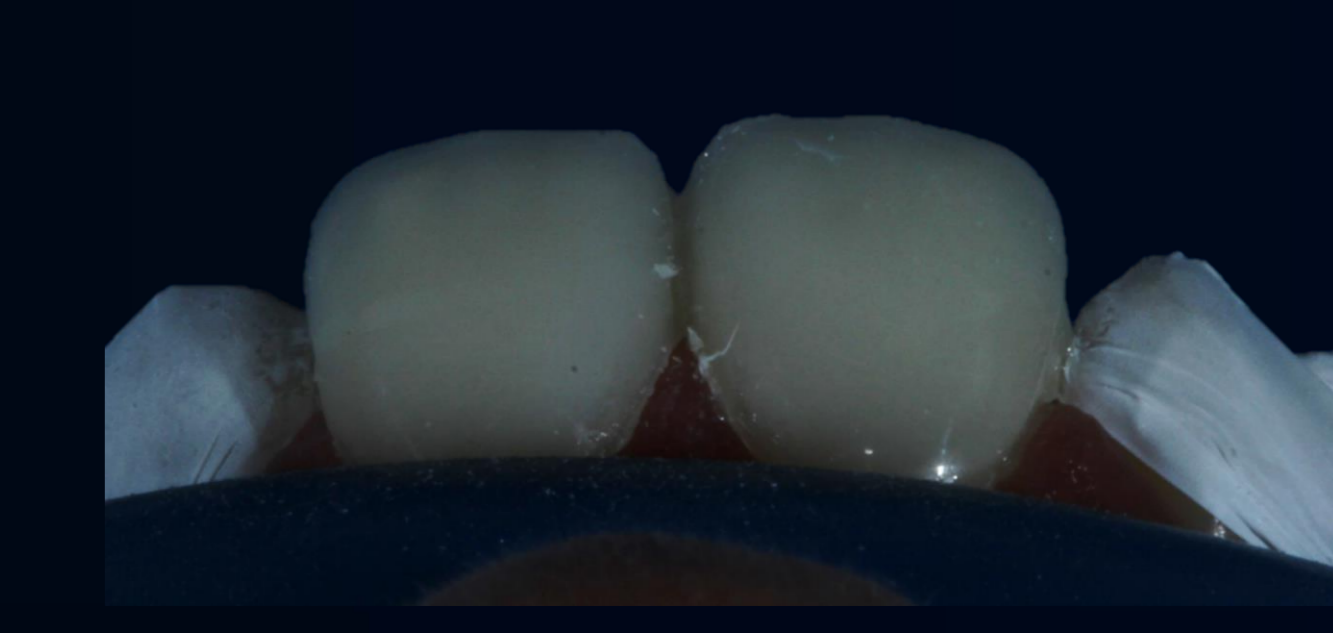
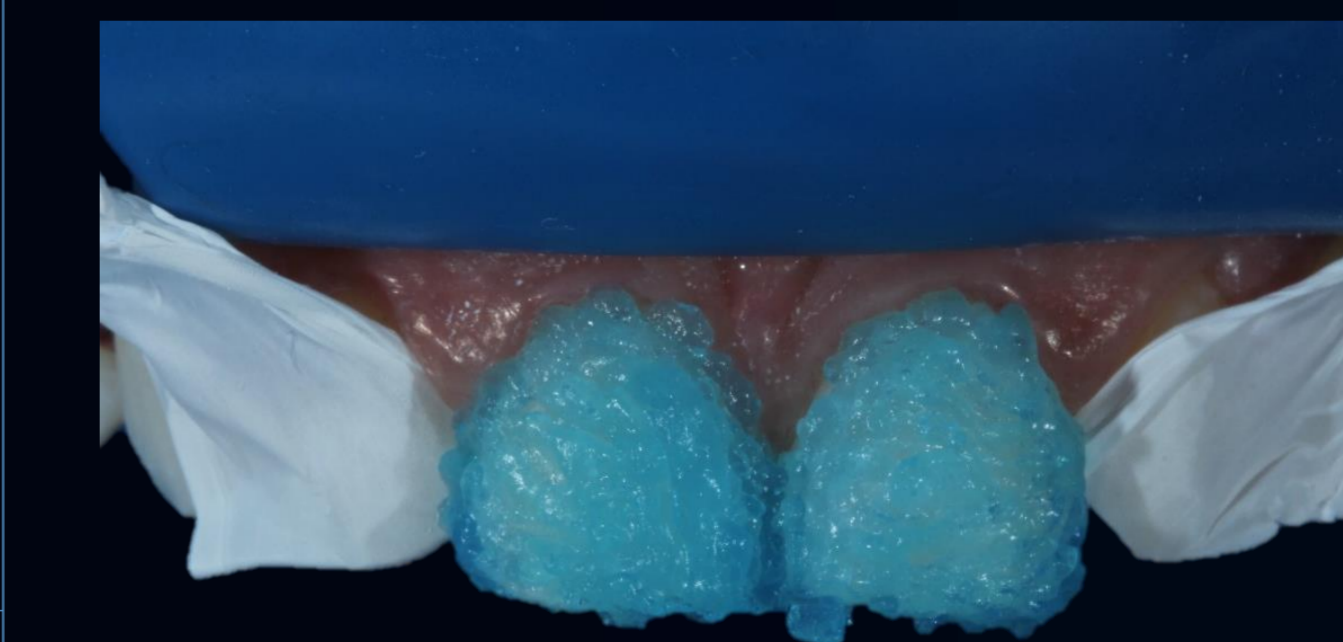
5. Try in with silicon guides



7. Final result



6. Adhesion



Magne P, Douglas WH. Porcelain veneers: Dentin bonding optimization and biomimetic recovery of the crown. Int J Prosthodont 1999;12:111-21.
Mangani F, Cerutti A, Putignano A. Clinical approach to anterior adhesive restorations using resin composite veneers. Eur J Esthet Dent 2007;2:188-209.
Perdigao J, Sezinando A, Munoz MA, et al. Prefabricated veneers—bond strengths and ultramorphological analyses. J Adhes Dent 2014;16:137-46.
Dietschi D, Devigus A. Prefabricated composite veneers: Historical perspectives, indications and clinical application. Eur J Esthet Dent 2011;6:178-87
Gurel G. Influence of enamel preservation on failure rates of porcelain laminate veneers. Int J Prosthodont 2013;33:31-9.
Vanini L, De Simone F, Tammaro S. Indirect composite restorations in the anterior region: A predictable technique for complex cases. Pract Proced Aesthet Dent 1997;9:795-802. quiz 804.