

Case report with Visalys® Core

March 2023, Dr Riccardo Perpetuini

With modern materials, special results can be achieved when fitting post and core build-ups.

If the conservative possibilities for the reconstruction of one or more teeth have been exhausted, the lost substance must be rebuilt with prosthetic measures, existing walls stabilized, old filling material exchanged and, in the case of complete loss of substance, the clinical crown prepared for the reception of the reconstruction. During these procedures the skills of the clinician and the choice of instruments play fundamental roles, but also do the dental materials used.

Ease of processing, high strength, good adhesion, stabilization of the remaining tooth substance, dentine-like grindability and attachment of all types of root posts are just a few of the requirements that we place on a material for core build-up and root post attachment.

Good enough, that during the time even those materials have been improved. For example Visalys® Core from Kettenbach Dental, which is indicated for doing core build-up and luting of root posts. In just one step, a root post can be fastened quickly and easily with Visalys® Core and the core build-up directly afterwards. This procedure ensures a stable monoblock in the root canal and a stable structure as a foundation for the restoration. In addition, the material can be modeled very well, even without a matrix, which makes processing much easier. Due to the inherent Active-Connect-Technology (ACT), Visalys® Core can be used with the most common adhesives.



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CLINICAL CASE

Let's look at this in our clinical case

The self-cured and dual-cured resin cements have led to a considerable increase of the use of fiber-reinforced posts instead of cast posts or metal-post for dental-abutment restorations, bringing considerable advantages such as a reduction in time and costs for the reconstruction of the abutment, less risk of root fracture, saving of dental tissue and pre-prosthetic build-up with better aesthetic characteristics, without significant discolouration. The preparation of the root canal for the post-space should cause the minimum possible removal of root dentin, thus it is advisable to use conical rather than cylindrical posts. The root canal filling materials are removed mechanically first with Gates-Glidden burs followed by calibrated burs for the creation of the postspace. The walls of the root canal must undergo thorough cleaning in order to expose decontaminated dentin avoiding traces of previous irrigating agents, lubricants or filling materials.

Restorative Primer is applied on the post surface and after 60 seconds subjected to a gentle air jet. Tooth Primer is applied with a microbrush

on the clean and dry surfaces of the root canal for 30 seconds, the excess material is removed from the root canal with a paper tip and a gentle jet of air. Visalys® Core is inserted into the lumen of the canal with a delicate and slow apical-coronal movement, the tip of the special tip remains immersed in the cement during extrusion avoiding the gap/bubble air formation. The post is gently lodged in the root canal, the working time of Visalys® Core is approximately 90 seconds, the excesses are sculpted with a spatula and a brush. In order to block the post position it is light cured. Preprosthetic restoration can be completed with a light-curing composite.

The use of reliable materials with excellent mechanical and aesthetic performance, associated with the correct clinical protocols, allow to obtain predictable results and the long-term success of the therapies performed.

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