

Replacement of an old bridge and reinforcement of cores using Lamel® composite resin cement and Glassix®, glass fibre reinforced composite post.

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The patient, a middle-aged woman presents an old bridge (gold and ceramic) on 23,24,25,26. The bridge is anchored on 23 and 25. It is dislodged and discoloured. The old bridge is sectioned and removed. Cores on 23 and 25 are exposed and are endodontically treated but have no post reinforcement. 25 is badly discoloured (black) probably by a previous amalgam restoration. (Fig. 1)



Fig. 1. Old bridge 23,24,25,26 is removed



Fig. 2. Standard Gates reamer N° 3 is used to open up canal.



Fig. 3. Calibrated Glassix® reamer is used to adapt shape and size of canal to selected Glassix® post.



Fig. 4. Glassix® post is tested to fit in prepared canal.



Fig. 5. Lamel® composite resin cement is injected with disposable auto mix tip directly into the root canal.



Fig. 6. Glassix® post placed in root canal and cemented.



Fig. 7. Core build up composite in a core form placed over shortened Glassix® post.



Fig. 8. Cores ready for impression and new bridge.

1. Both canals in 23 and 25 are opened using a standard Gates reamer N° 3. (Fig. 2)
2. The root canals are adapted using a **Glassix®** reamer calibrated to fit the shape, size and diameter of the selected **Glassix®** glass fibre post. (Fig. 3)
3. The root canal is cleaned and can be etched with a 37% phosphoric acid gel (this is optional as the cement (Lamel® composite resin cement) to be used has good retention to canal wall by itself).
4. Selected **Glassix®** glass fibre posts are tried in root canal to check that fit is correct. (Fig. 4)
5. It is decided to shorten **Glassix®** posts only after cementation as the longer posts are easier to insert into root canal.
6. **Lamel®** composite resin cement is inserted directly into canal using its disposable auto mix tip (**Lamel®** requires no mixing on slab nor does it require any bonding or any other accessories as it has a perfect bond by itself). (Fig. 5)
7. Some **Lamel®** is also applied to post which is then inserted.
8. **Glassix®** posts are inserted in root canal with **Lamel®** resin cement let to set (setting time 3-5 minutes). (Fig. 6)
9. When **Lamel®** is fully set the posts are shortened to desired length with a diamond bur.
10. If posts are already in the desired length core build up material can be applied without waiting for **Lamel®** to be fully set (the two composite materials will bond together).
11. Excess **Lamel®** cement is removed and some etchant (37% phosphoric acid in gel) is applied to dentine next to post to allow core build up to bond to the tooth.
12. Core build up composite is placed in a core form which is placed over 23 and core build up material is light activated. (Fig. 7)
13. Core 25 has sufficient tooth substance and some **Lamel®** left and therefore requires no special core build up material.
14. When cores are set the core form is removed and adjusting preparations are made on cores with a diamond burr.
15. Cores are now ready for impression and a new bridge in porcelain fused to gold will be made and fitted. (Fig. 8)