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PREPARING A FIBRE REINFORCED POST AND CORE STRUCTURE AND A COMPOSITE CROWN USING DIRECT TECHNIQUE



D13 was fractured accidentally and has been root canal treated. The treatment plan was to reconstruct the tooth with a composite crown. Retention for the filling is obtained with a fibre post and core structure prepared chair-side. (Fig. 1)

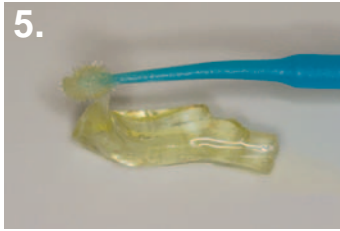


Root canal filling has been removed from the cervical third of the root canal by using a Gates Glidden burr. (Fig. 2)

A tailor-made fibre post is fitted into the root canal (everStickPOST, Stick Tech Ltd, Finland). The post, consisting of three fibre pieces, has been individually designed according to the root canal. One main post has been placed into the prepared length of the canal and two shorter posts are set to give support on the palatal side and into the cervical part of the canal. The posts are pre-light cured in the canal into one single fibre bundle (Fig. 3, 4).



The post was then light-cured completely and covered with composite resin (Scotchbond Multipurpose resin, 3M Espe) for good bonding. The resin was allowed to act for 3 minutes being protected from light. After this the resin was air-burst into a thin layer and light-cured. (Fig. 5)



The dentine and enamel were bonded and the post was cemented with composite cement (ParaPost cement, Coltene Whaledent) (Fig. 6).

The fibre bundle is very light permeable, and when there is a thick layer of fibres on the crown area, the final filling may look too translucent and grey. The coronal part of the fibre post was covered with a layer of yellowish opaque composite in order to achieve the right shade of colour (Sinfony, 3M Espe). (Fig. 7)



A composite crown was built on the post by using layering technique (Clearfill APX, Kuraray) (Fig. 8).

