

# **Esthetic rehabilitation of maxillary central incisor with direct composite restoration**

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## **I. Introduction**

Restorative treatment of anterior teeth is difficult because we have to take into consideration not only the removal of infected area but also the esthetics. We have two options for esthetic anterior restoration; indirect full-coverage and direct composite restoration. To choose more suitable treatment, it is necessary to take account of several factors; depth of defect, degree of exposure of defect, color stability, preference of patient and so on. In this case, deep dental caries that can cause pulpitis was on both distal and mesial surfaces of the maxillary central incisor. The defects were visible from the frontal view and discoloration of the tooth was noticeable. After estimating the defects with radiologic and clinical examination, direct composite restoration after endodontic treatment was selected as the treatment of choice.

## **II. Case report**

1. Sex/age : Male / 14
2. Chief Complaint  
: 'I feel pain on upper anterior teeth. Dentist at local clinic said there are deep caries on several teeth.'
3. Past dental history :
  - Visit at a local clinic one week ago. No treatment was done.
4. Present illness :
  - #11 : air test (+), percussion (+), Ice test (+++), lingering pain (+)
5. Diagnosis : #11
  - Pulpal : Irreversible pulpitis
  - Periapical : Symptomatic apical periodontitis
  - Class III dental caries on mesial and distal surfaces
6. Treatment plan :
  - #11 root canal treatment and direct composite restoration

## **III. Conclusion**

It was my first case of the esthetic anterior restoration, so there were some additional procedures for practice and esthetic examination; shade selection after endodontic treatment and mock up procedure. After the laboratory practice, resin operation was performed with nanofilled composite resin (MI GraceFil; GC) using the layering technique. The adhesive system used was etch-and-rinse system (SingleBond 2; 3M/ESPE) since enough enamel surface and its low technical sensitivity. At the two-week and two-month recall check, the color and outline form was stable and the patient was satisfied. Periodic follow-up is necessary to check the state of restoration and the tooth.

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