

## Smile Redesigned – A Case Report

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Tooth size discrepancy or uneven spacing between the anterior teeth is a major aesthetic problem for patients. Closure of these interdental spaces using resin composite offer to be a more conservative and practical approach. Direct composite restoration has several distinct advantages, such as conservation of tooth structure, reversibility of procedure, lower cost to patient and relative ease of addition or removal of materials when necessary. The other treatment modalities that are suggested for treating the anterior space are orthodontic approach or a combination of restorative and prosthodontic treatment method.

Therefore, an interdisciplinary approach that will combine two or more treatment methods may be required in order to achieve a better treatment outcome. This case report describes the treatment of a patient with maxillary anterior spacing, caused by relapse of the orthodontic treatment, which has lead to uneven spacing in the anterior region.

### **CASE REPORT:**

A 30-year-old female patient came complaining about spacing in the maxillary anterior teeth. On clinical examination, the aesthetic problem of the patient in maxillary anterior region was uneven spacing among the front teeth from right canine to left canine, with slight midline deviation to the right side. The patient gives a history of maxillary surgery combined with orthodontic treatment for correction of her proclined upper anterior teeth 3 years back. There was no aesthetic problem in mandibular anterior region. The widest interdental space was between two central incisors, approximately 3 mm and between 11 and 12 approximately 4 mm. Mild proclination of the upper 11 was also present.[FIG Ia, Ib, Ic]

On the first visit, an irreversible hydrocolloid impression of both arches were taken to fabricate a diagnostic cast.



FIG Ia: Pre-operative view



FIG Ib: Model



FIG Ic: OPG

The main requirement for the patient was an immediate treatment result and was neither willing for any orthodontic treatment nor any surgical procedure. Based on the analysis of the patient's face, tooth size discrepancy and the diagnostic cast, a diagnostic wax-up was made. [FIG II & FIG III]



FIG II: Wax mock up



FIG III: Temporization

After thorough consultation and review of the treatment option, the patient was willing to undergo intentional root canal therapy followed by fixed prosthetic replacement. Routine endodontic therapy was carried out in 12, 11, 21, and 22. Following which tooth preparation was done based on the mock preparation made. An utmost care was taken to evenly redistribute the interdental spacing among the anterior region [FIG IV & FIG V]. The final impression was taken and the fixed PFM bridge was processed.



**FIG IV:** Tooth preparation



**FIG V:** Post-operative view

It is six months since the treatment is complete. The patient is happy with the outcome of the treatment through the comprehensive approach. Although the patient is happy and satisfied with the appearance, a better result could have been achieved if the gingival level of the central incisors also was corrected through periodontal approach. The aesthetic appearance with a pleasant smile requires interdisciplinary approach to achieve the treatment goal. By practical treatment approaches used in this case, the patient's demand was met to obtain a good aesthetic result.

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