CASE REPORT

Splinting with diastema closure as an adjunct to periodontal therapy

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SUMMARY

A variety of treatment modalities, from removable partial dentures, fixed prosthesis to implant placement can be used for replacement of missing teeth. Anterior diastema closure is one of the most challenging tasks; it is appreciable that restorative approach is the fastest, simplest and most predictable. This case report presents a successfully accomplished closure of diastema in mandibular anterior teeth, and splinting of the adjacent teeth which were grade II mobile. This present treatment modality offers a conservative, aesthetic and non-invasive treatment which can be considered as a long-lasting treatment.

BACKGROUND

Freehand composite restorations are well suited for diastema closures, permitting the addition of material to teeth without reducing the tooth structure.¹ With practice and an effective technique, the result can be ideal.²

CASE PRESENTATION

A 48-year-old female patient presented with spacing in the lower front teeth region and mobility of the same. The patient's medical history revealed no problem. A clinical examination revealed 8 mm of space between mandibular central incisors and Grade II mobility of teeth 31 and 41 (figure 1).

TREATMENT

Isolation of teeth was performed with rubberdam and for unprepared enamel surface was etched with 37% phosphoric acid (Ivoclar Vivadent, Liechtenstein) for 60 s. After rinsing, the surface was air-dried, visually inspected for proper etching and covered with a bonding agent and light cured. Mylar strip was placed on tooth 31, and the tooth was built with composite resin. The same procedure was carried out and tooth 41 was restored.

Figure 1 Preoperative photograph revealed 8 mm of space between mandibular central incisors.

Figure 2 Postoperative photograph reveals natural contours at the gingival tooth interface, a smooth gingival margin and closure of the diastema.

Finishing and polishing was performed with Sof-Lex disks and Sof-Lex strips.

OUTCOME AND FOLLOW-UP

Natural contours at the gingival tooth interface, a smooth gingival margin (figure 2).

DISCUSSION

Direct resin is a recommended procedure for diastema closure, which is frequently accomplished in the clinic. In the present case report, a simple closure of the diastema may not offer a natural and pleasant smile to the patient. Remodelling with composite resin can solve the problem of tooth architecture, which requires a great skill to accomplish.

Learning points

- ▶ This technique is more aesthetic, functional and comfortable.
- ▶ It can be considered as a long-lasting provisional treatment.
- ▶ It is easier to bond, more aesthetically pleasing and an adjunct to periodontal therapy.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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- 2 Willhite C. Diastema closure with freehand composite: controlling emergence contour. *Quintessence Int* 2005;36:138–40.

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