Displacement of a composite restoration fragment into the gingiva: an unusual complication of surgical removal of teeth

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DESCRIPTION

In the maxillofacial region, foreign bodies occur due to trauma or therapeutic interventions.¹ One of the most commonly reported foreign bodies in the jaw bones are filling materials.² Ghafoor *et al* described a rare case in which a wide area of bone loss with loss of two teeth was related to an intra-osseous foreign body reaction due to amalgam displacement in the extraction socket.³ Another clinical case by Fredrik *et al* illustrated calcium hydroxide paste displacement into the mandible and the advantages of retrieving such displaced material before symptoms worsen.⁴ Multiple imaging techniques can be used to localise the foreign bodies which include plain radiographs, CT, MRI or ultrasound.⁵ This case clearly demonstrates an iatrogenic cause for discomfort and irritation of the mandible due to a displaced composite restoration fragment requiring surgical referral and treatment, which was potentially avoidable.

A 25-year-old male patient presented with a complaint of discomfort in the left mandible since last 6 months. On inspection, the area of discomfort was localised in the region of teeth #36 and #37. There was mild erythema and swelling in the region. There was no facial swelling, cervical lymphadenopathy or trismus on physical examination. Intra-oral examination did not reveal tenderness, pus discharge, bleeding or any other secondary symptoms. A composite restoration was noticed on tooth #37. The patient had a history of surgical removal of tooth #38 6 months prior. Panoramic radiograph did not show any significant findings. The patient was advised to maintain good oral hygiene and gargle with saltwater three times per day for 2 weeks. A review was scheduled after 2 weeks during which the patient did not report any change in the symptoms. A Cone Beam Computed Tomography (CBCT) was advised, which revealed a small radio-opaque area in the gingival soft tissue overlying in the alveolus lateral to teeth #36 and #37 (figure 1).

The patient was prepared, and surgical retrieval of the foreign body was performed after taking a thorough medical history. An inferior alveolar nerve block was administered using 2% lidocaine with 1:100 000 epinephrine. A modified wards incision was placed, and the flap was carefully reflected, not to displace the foreign body. A white coloured material was observed after careful exploration in between teeth #36 and #37 (figure 2). The material was seen to be embedded between the

Figure 1 (A) Cone Beam Computed Tomography (CBCT) of the patient, green arrow pointing to the foreign body between teeth #36 and #37. (B) Three-dimensional (3D) CT of the patient, green arrow pointing to the foreign body between teeth #36 and #37 (scale 1.43) Planmeca 3Ds CBCT unit (Helsinki, Finland); 200 µm voxel, 90 kVp, 12 mA, 12.35 s exposure.

periosteal layer and the bone. The foreign body was then removed cautiously, and the site was irrigated well with saline. The flap was secured with simple interrupted sutures using (3-0) silk. On careful

Figure 2 The retrieved composite particle from the mandible is encircled.

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inspection of the adjacent area, it was found that a small piece of the composite restoration had chipped off from the distal most aspect of the tooth #37 and had displaced into the gingival soft tissue overlying the mandible, which in turn caused the irritation. The patient when reviewed 2 weeks postoperatively was asymptomatic.

Learning points

- Dentists should be mindful of restorations on teeth adjacent to surgical site.
- In case of any doubt of dislodged fragments of restoration, attempts should be made to recover them from the tissues.
- Most displaced foreign bodies in mandible are found only during imaging or when patients complain of symptoms.

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