

Technical note

Sandwich technique for the surgical management of oral submucous fibrosis

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The standard treatment of oral submucous fibrosis is fibrotomy together with a coronoidotomy or coronoidectomy, or both, and the extraction of all third molars. To achieve predictable mouth opening without recurrence, reconstruction with a buccal fat pad or nasolabial flap are most commonly used, but both techniques have limitations.



Fig. 1. Harvest of the nasolabial flap and buccal fat pad.

The harvest of a buccal fat pad is easy, but its anterior reach is often inadequate and so cannot be used for larger defects,¹ and at times, the anterior area is left raw. This area heals by second intention and subsequently fibroses, which



Fig. 2. Reconstruction of the posterior part of the defect with the buccal fat pad.

gradually leads to relapse.² The shortcomings of a nasolabial flap are that it may undergo partial necrosis,³ and sometimes the most posterior part of the defect is left uncovered as a result of insufficient reach of the flap; and even if covered, there is the potential for dead space to be left between the flap and the defect bed. This may lead to necrosis of the flap and a nidus for infection. So, to overcome these limitations,

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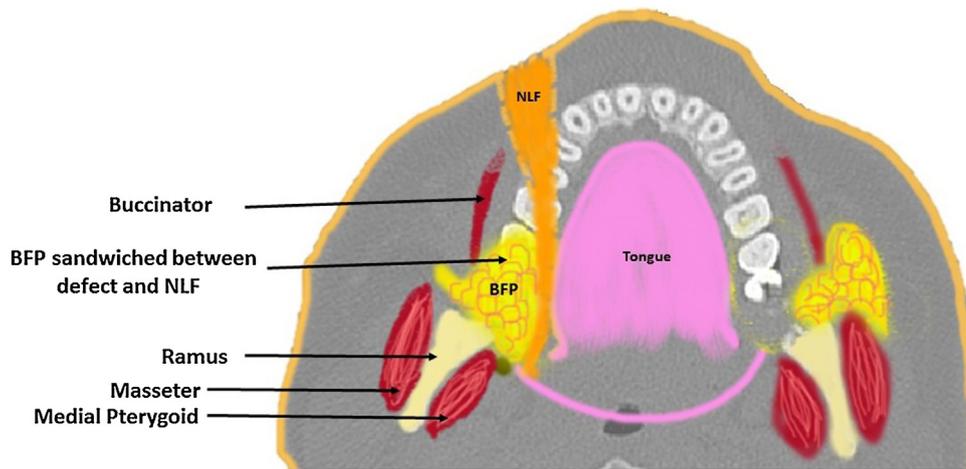


Fig. 3. Schematic representation of the nasolabial flap and buccal fat pad (the sandwich technique) for reconstruction of the defect.



Fig. 4. Final reconstruction of the defect with the nasolabial flap.

we have developed a new “sandwich” technique that uses the benefits of both procedures.

After forceful opening of the mouth, we make a horizontal incision along the mandibular occlusal plane, and sever the fibrous bands to prevent inadvertent injury to Stenson’s duct. Through the same incision, we then make a temporalis myotomy and coronoidotomy, or coronoidectomy, or both, as necessary.

We remove the upper and lower third molars, if present, to avoid cheek biting and injury to the flap postoperatively. Another advantage of removing these teeth is that they are often the source of recurrent pericoronitis and subsequent fibrosis.

We then harvest the nasolabial flap (without involving the muscular part) and the buccal fat pad (Fig. 1). The buccal fat pad is used to fill the most posterior part of the defect in such a way that it is sandwiched between the nasolabial flap and the defect, which obliterates any dead space and prevents the formation of haematomas (Fig. 2). We reconstruct the anterior part of the defect with the nasolabial flap, and extend it

posteriorly to surround the buccal fat pad, thereby sandwiching the fat pad between the nasolabial flap and the defect bed (Figs. 3 and 4).

Finally, we use absorbable sutures to secure the flap, which is subsequently protected with a paraffin gauze pack for 48 hours intraorally. We advise patients to maintain good oral hygiene from day one, and to do regular mouth opening exercises using a trismus screw after five days.

The technique is simple, repeatable, and offers predictable, long-term mouth opening.

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Conflict of interest

We have no conflicts of interest.

Ethics statement/confirmation of patients’ permission

Ethics approval was not required. All patients’ consent was obtained.

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