Case Report

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Repair of large palatal fistula using tongue flap

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SUMMARY

Large palatal fistulas are a challenging problem in cleft surgery. Many techniques are used to close the defect. The tongue flap is an easy and reproductible procedure for managing this complication. The authors report a case of a large palatal fistula closure with anteriorly based tongue flap.

Key words: Cleft surgery, fistula, palate, tongue flap

INTRODUCTION

Large fistulas of the hard palate are not uncommon and represent a big challenge for cleft surgeons. Multiple failures at cleft palate repair leave behind a scarred palate, with bad quality tissue available for closure. In these cases, a tongue flap is a good alternative. The authors report a case of a large palatal fistula closure with anteriorly based tongue flap.

CASE REPORT

A 2-year-old boy presented with a large palatal fistula measuring 4, 5 cm × 2 cm 1 year after repair of bilateral cleft lip and palate [Figure 1a]. His fistula was secondary to a hard palate necrosis after primary closure procedure. Because the local tissue was inadequate for fistula closure, a tongue flap was indicated.

The fistula was closed under general anaesthesia with nasotracheal intubation. An incision was made around the margins of the fistula and in the vomer. The mucosa of palatal margins and vomer flaps were then mobilised, following which the nasal lining was reconstructed by approximating the marginal flaps and vomer flaps using 5-0 vicryl sutures. An anteriorly based flap was designed in the tongue [Figure 1b].

The thickness of the flap was 3 mm and deeper at its base to ensure a good blood supply [Figure 1c]. After checking the viability of flap, the donor site was then closed directly and the flap was fixed to the palate using 4-0 vicryl. A naso gastric tube was put to unsure feeding. After 3 weeks, the pedicle was divided and the pedicle remnant was returned to the tongue [Figure 1d and e]. The complete healing was obtained after 2 weeks and the patient does not have any residual fistula [Figure 1f].

DISCUSSION

Management of large palate fistula remains a serious problem especially after many attempts at closure. Many procedures are possible to restore this defect: Obturators which are not well tolerated in the long run and autologue flaps.[1,2]

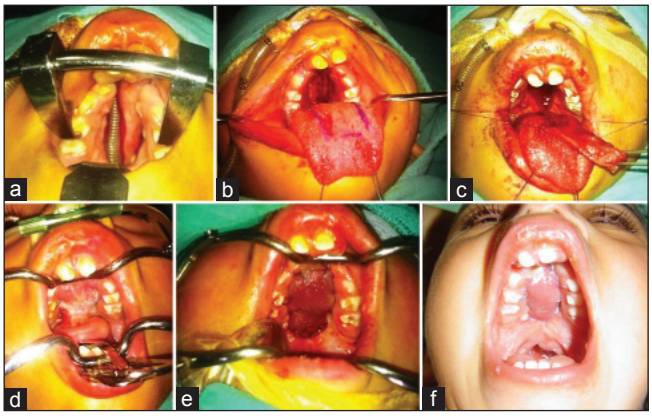


Figure 1: Large hard palate fistula after bilateral cleft palate repair. (b) Nasal layer repaired by mobilisation of marginal flaps from the hard palate and vomer flaps. Design of an anterior based tongue flap. (c) Dissection of the flap.(d) Aspect at 3 weeks after the procedure. (e) Depedicling of the flap. We can see flap congestion. (f) The palate 3 weeks after depedicling the tongue flap

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The tongue is one of the most donor sites for flap oral cavity reconstruction.

Guerrero-Santos and Altamirano, were the first to report on the use of tongue flaps for palatal defect closure.[3]

Its good vascularisation from the lingual artery and its branches[1] permits different flap designs: Anterior based flap, posterior based flap, lateral flap, median flap and central island flap.

The tongue flap is easy and reproducible with excellent esthetical and functional results. The advantages are the use of adjacent tissue, the excellent blood supply and the low morbidity in donor site.

However, some disadvantages can be noted: Use of naso gastric tube for alimentation, inability in swallowing and speech until depedicling of the flap and in some cases the attachment of the flap can be lost due to traction. Guerrero-Santos and Altamirano suggested fixing the tip of the tongue to the upper lip to reduce the mobility of the tongue.[3,4]

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