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The buccal fat pad in recostruction of malignant lesions of the oral cavity: our experience on 31 cases

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Background

The use of the Buccal Fat Pad (BFP) as a pedicled graft in the closure of intra-oral defects after oncological resections has gained in popularity, it is probably due to the ease of access, the rich blood supply and the low morbidity. The purpose of this study is to show our clinical experience and the results related to the use of the BFP in the repair selective malignant lesions of the oral cavity.

Material and methods

This study included a series of 31 patients, from January 2001 to January 2009, with BFP primary reconstruction after medium intraoral malignant lesions excision. After tumors excision, the BFP was gently exposed in the region of the molars by blunt dissection with the goal of keeping the fascial envelope intact and to preserve BFP vascular supply. The graft is then sutured covering the defect margins by interrupted resorbable sutures (Figure 1). The success criterion was the complete epithelialization of the graft and the absence of the graft's infection and fistulae occurrences. All the patients underwent primary closure of defects with the buccal fat pad. Four patients who underwent the operation also had adjuvant radiotherapy. Patients underwent one year follow-up.

Results

All intraoral defects were adequately repaired but there was partial loss of the BFP in one case and complete loss in another (Table 1). Patients with an uneventful immediate postoperative period had signs of BFP epithelialization by the end of the first week. One month later, most of the patients had the BFP replaced by a thin whitish streak covered by normal mucosa, with very minimal fibrosis. The mouth opening was satisfactory in 21 patients, including those who received adjuvant radiotherapy. The BFP was epithelialized within 3–4 weeks and no additional surgery was required (Figure 2).

Conclusions

In conclusion we consider the BFP an ideal choice for the reconstruction of medium intraoral defects especially in post-oncologic cases, where the morbidity and the failure rate of reconstruction must be very low. Even more radiotherapy if necessary, can begin early, due to fast epithelialization process.

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References

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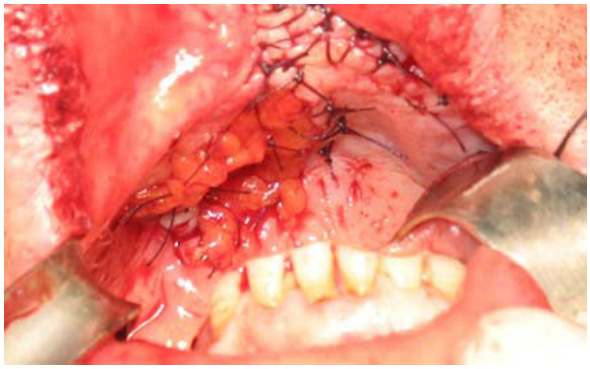

Figure 1

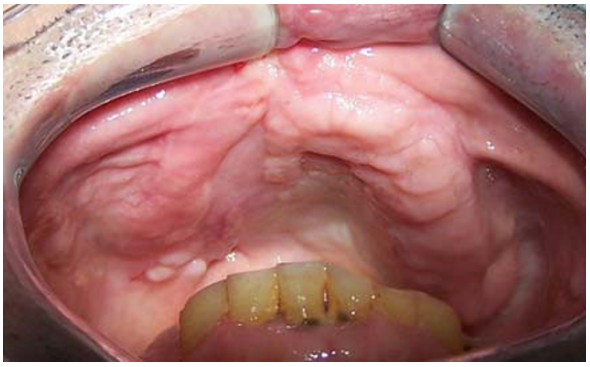

Figure 2

Table 1

Pz. Age	Site	Size (cm) max. diameters	Healing	Complications
76	BM	4	RETRACTION	L IMITED ORAL OPENING
65	HP+SP	5	APPROPRIATE	NONE
72	BM	3	APPROPRIATE	NONE
78	HP+GB	5	RETRACTION	L IMITED ORAL OPENING
60	HP	3	APPROPRIATE	NONE
75	RMT	5	RETRACTION	L IMITED ORAL OPENING
60	HP+SP	4	APPROPRIATE	NONE
65	HP	4	APPROPRIATE	NONE
48	HP+SP	5	APPROPRIATE	OROANTRAL FISTULA
45	RMT	3	APPROPRIATE	NONE
68	HP	3	APPROPRIATE	NONE
72	HP+SP	5	APPROPRIATE	NONE
62	HP	3	APPROPRIATE	NONE
59	HP	3	APPROPRIATE	NONE
51	BM	2	APPROPRIATE	NONE
66	HP+SP	5	APPROPRIATE	NONE
70	BM	2	APPROPRIATE	NONE
43	HP	2	APPROPRIATE	NONE
67	HP	3	APPROPRIATE	NONE
66	BM+GB	4	RETRACTION	L IMITED ORAL OPENING
68	BM	5	RETRACTION	L IMITED ORAL OPENING
74	RMT	4	APPROPRIATE	NONE
73	BM+GB	5	RETRACTION	L IMITED ORAL OPENING
72	BM	4	RETRACTION	PARTIAL L IMITED ORAL OPENING
64	HP	3	APPROPRIATE	NONE
66	BM	3	APPROPRIATE	NONE
70	BM+GB	5	RETRACTION	PARTIAL L IMITED ORAL OPENING
67	HP	4	APPROPRIATE	PARTIAL L IMITED ORAL OPENING
53	RMT	4	RETRACTION	PARTIAL L IMITED ORAL OPENING
71	HP+SP	5	DELAYED	COMPLETE LOSS
68	HP	4	APPROPRIATE	PARTIAL LOSS

HP: hard palate; sp:soft palate; bm: buccal mucosa; gb: gingivobuccal sulcus; rmt: retromolar tritone