

USE OF TONGUE FLAP FOR REPAIR OF DEFECTS AFTER EXCISIONAL SURGERY FOR CANCER

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During the past two decades surgeons have tried to do more and more extensive excisions for oral cancer, thus leaving large defects which need a quick and satisfactory repair. Majority of these defects require two flaps, one for lining and another for cover. The tongue located within the oral cavity, rich in blood supply, free mobility and covered by mucous membrane, appears to be a very suitable source for providing lining in the repair of such defects.

The tongue flap was first used by Lexer (1909) for repair of adjacent defects of the cheek. More Recently the flap has been extensively used at the Rosewell Park Memorial Institute for repair of a wide variety of defects of the oral cavity (Bakamjian 1964, 1972, 1974). Besides this several other authors have also described the usefulness of this flap in such repairs (Klop 1949, Calamel 1973, Ganguli) In the present paper the author describes his experience in the use of the tongue flap for reconstruction of defect, after excisional surgery for cancer in twenty five cases.

Observation

Table I shows the location of the various defects and table II the types of flap used. All the flaps used in this series were posteriorly based

and were made 5 to 7 mm thick. The donor area was invariably closed by direct primary suture.

Eighteen of the repairs were done at the time of excisional surgery and seven were done at a second stage. The complications encountered are shown in table III. In ten cases the pedicle had to be detached at a second stage. The maximum size of flap used consisted of the lateral third of the tongue opened out as a flap.

Discussion

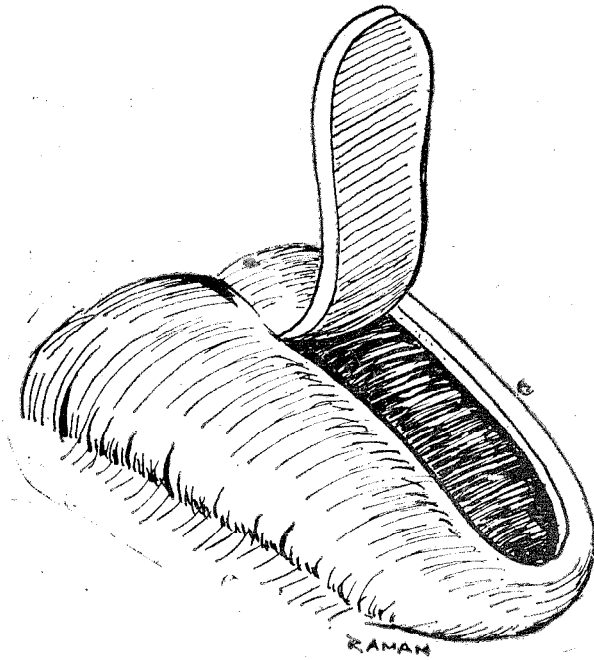
The tongue provides an ample source of very vascular spare tissue, lined by mucous membrane and located ideally so that its flaps can reach any corner of the oral cavity in a single stage. It is therefore an extremely useful flap for reconstruction of defects in the oral cavity. Tongue flaps are ideally suited for repair of defects of retromolar and tonsillar area, soft palate, buccal mucosa, floor of mouth and the lip vermilion. Because of the excellent blood supply the risk of flap necrosis is minimal. Majority of the flaps can be transferred in a single stage. The tongue flaps also provide a near natural vermilion border, which is not possible by any other method of reconstruction.

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The discomfort to the patient is minimal. Particularly in irradiated cases the tongue provides a rich source of blood supply to the reconstructed area. The donor area does not suffer to any great extent. Bekamjian has described a wide variety of tongue flaps based anteriorly or

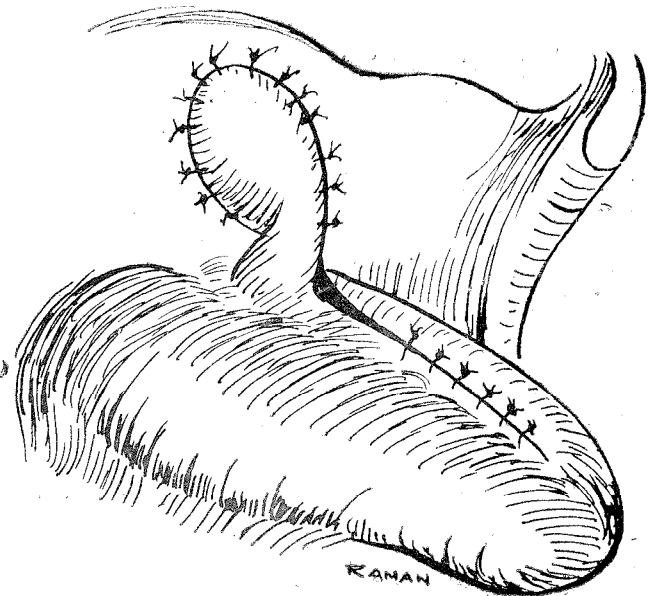
posteriorly, and disposed longitudinally or transversely.

Based on the experience in this series, we consider the tongue flap to be an extremely useful flap for reconstruction of defects of the oral cavity resulting after excisional surgery for cancer.



A

Fig. No. 1 A



B

Fig. No. 1 B

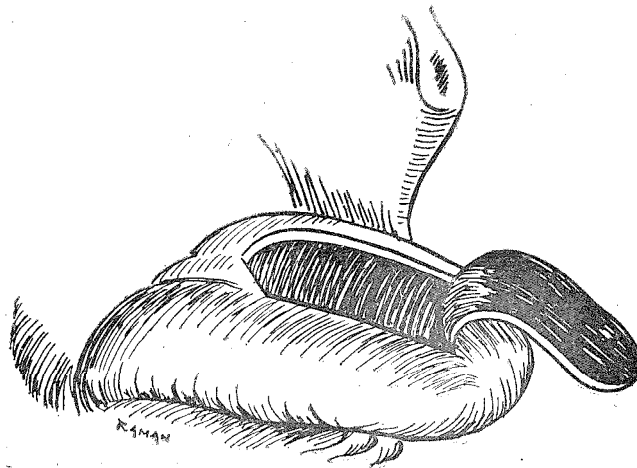
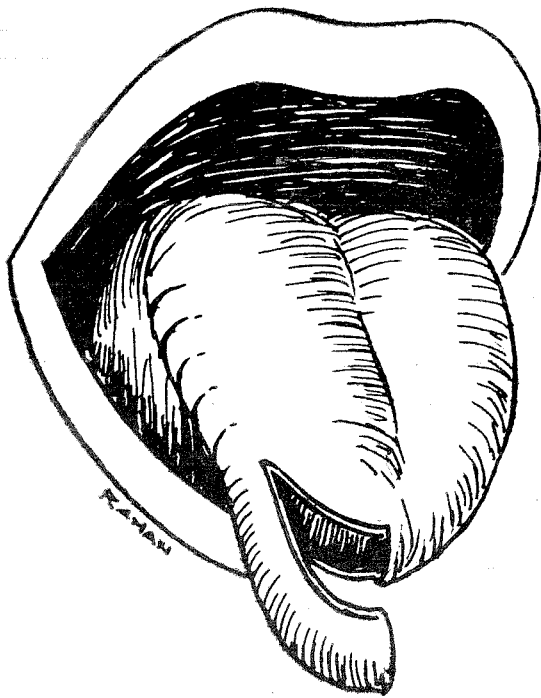
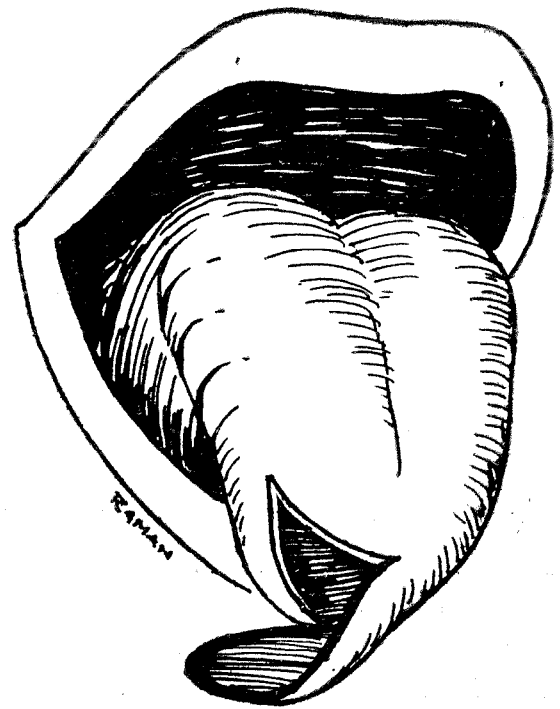


Fig. No. 2



A
Fig. 3 A



B
Fig. 3 B

TABLE I

S. No.	Location of defect	Number
1.	Retromolar	7
2.	Soft palate	6
3.	Post Buccal Mucosa	10
4.	Floor of Mouth	2
Total		25

TABLE II

S. No.	Type of Flap	Number
1.	Lateral border of Tongue	15
2.	Dorsal surface of tongue	10

TABLE III

S. No.	Complication	Number
1.	Detachment of Flap	1
2.	Partial Flap Necrosis	1

REFERENCES

1. Bakamjian, V. Y. Use of tongue flaps in lower lip reconstruction. *Br. J. Plast. Surg.*, 171-191, 1964
2. Bakamjian, X. Y. : Anteriorly and posteriorly based pedicle flaps from the dorsum of the tongue in proceedings of the first international symposium on 'Plastic and Reconstructive Surgery of face and neck. Vol-2, 1972, Verlag.
3. Calamel P.M . The median transit tongue flap. *Plast. Rec. Surg.*, 51 : 315, 1973.
4. Klop, C. T., The surgical treatment of cancer of the soft palate and tonsil. *Cancer*, 9 : 1235, 1956.
5. Lexer, E : Wangenplastile. *Dtsch. Z. Chir.* 100 :296, 1909.