

진행된 구강암과 설전절제술

한림대학교 의과대학 이비인후-두경부외과학교실

노 영 수 · 김 진 환

Advanced Oral Cavity Cancer and Total Glossectomy

Young Soo Rho, MD and Jin Hwan Kim, MD

Department of Otorhinolaryngology-Head and Neck Surgery, Hallym University, College of Medicine, Seoul, Korea

-ABSTRACT-

Management of advanced oral cavity carcinoma is still challenging issues because it shows poor survival rate in spite of aggressive treatment and can create severe functional deficit after ablative resection. Despite of wide surgical resection combined with postoperative radiotherapy, the 5-year survival rate has remained unchanged over past 10 years period, due to high locoregional recurrence rate, distant metastasis, and multiple primary carcinoma. The patients requiring the extensive resection for the advanced oral cavity cancer often have failed other treatment modalities. Resection including the total tongue and the adjacent structures, such as the mandible or the larynx, create the complex structural deformity. Total glossectomy is the management of choice for advanced carcinoma of the floor of the mouth and the tongue. Particularly, total glossectomy with preservation of the larynx was not well accepted by the majority of the head and neck surgeons, because it always induce the potential risks for disruption of the deglutition and life-threatening aspiration as well as severe speech impairment. The purpose of reconstruction for total tongue defects is to restore swallowing without aspiration and regain intelligible speech. Many reconstructive options for this large defect have been introduced, there is still lack of reliable methods for proper functional restoration. Recently, the morbidity after major resection and rehabilitation have improved significantly with use of more innovative and reliable reconstruction. Total glossectomy can not provide a benefit in survival but may provides excellent palliation of symptoms and offers preferable locoregional control rates rather than radiotherapy or chemotherapy. However, it should only be undertaken in motivated and well-supported patients able to accomplish the difficult rehabilitation process. Therefore, treatment strategies should be decided based on proper patients selection and multidisciplinary team effort is essential for successful outcome. (J Clinical Otolaryngol 2003;14:56-64)

KEY WORDS : Advanced oral cavity cancer · Total glossectomy · Reconstruction.

서 론

19,000

가 , 4,200

2002

AJCC 3

: , 134 - 701 445

20~30%

: (02) 2224 - 2279 · : (02) 482 - 2279

가

E - mail : ys20805@chollian.net

가 .¹⁾

20 gauze
5~10 ml 1% toluidine blue solution
acetic acid

Table 1. Accuracy of various teste (Shaha A. Head & Neck 199 ; 13 : 398 - 402)

	Correct	False (+)	False (-)
Clinical evaluation	53 (88%)	5	2
X-Rays ; panorex	43 (72%)	4	13
CT scan	41 (68%)	8	11

(thickness) 가 3~4 mm 가

가 ⁶⁾

(Mandibular invasion)

가

가

가 1.5 cm 가

가

⁴⁾

(bone scan),

(MRI)

AP. lateral & oblique, occlusal view,
view

occlusal view
panoramic view

(CT scan),

mandible

panorex
symphysis

30%

적응증

가 가

(T3, T4)

(preepiglottic

space)

(vallecula)

(Table 1).⁷⁾

가

가

가 12~20%

가

(marginal

mandibulectomy)

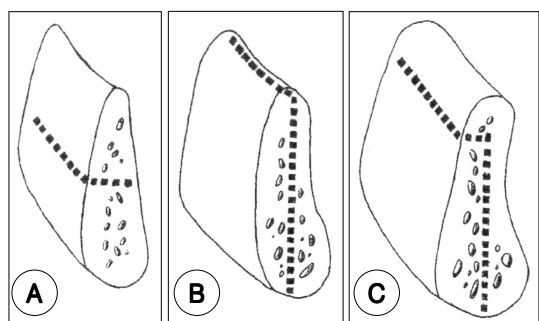


Fig. 1. Marginal mandibulectomy. A : Horizontal. B : Sa-
gittal. C : combined.

(Fig. 1).

(Total glossectomy)

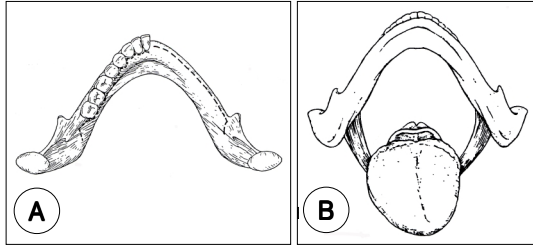


Fig. 2. Mandibular lingual releasing approach. A : Oral mucoperiosteal incision. B : Delivery of the tongue and floor of mouth in to the neck (Stringer et al., Otolaryngol Head Neck Surg 1992 ; 107 : 395-8).

수술 술기

가

(transoral approach)

(mandible sparing approaches)

(mandibulotomy) (mandibulectomy, composite resection)

(marginal mandibulectomy) (mandibular lingual release approach) (Fig. 2) (segmental resection)가 (mandibulotomy approach)⁸⁾

apron incision (lip - splitting incision) lower cheek flap visor flap . cheek flap 가 visor flap mental nerve

(osteonecrosis)가

(transhyoid pharyngotomy)

(lateral pharyngotomy)

가

Gehanno⁸⁾ 11 80 11 7

가

(laryngeal suspension),¹⁰⁾ (laryngoplasty)(Fig. 3),¹¹⁾ epiglottto - aryepiglottto-pexy,¹²⁾ (cricopharyngeal myotomy)¹³⁾

재 건

1) 가 , 2) 가

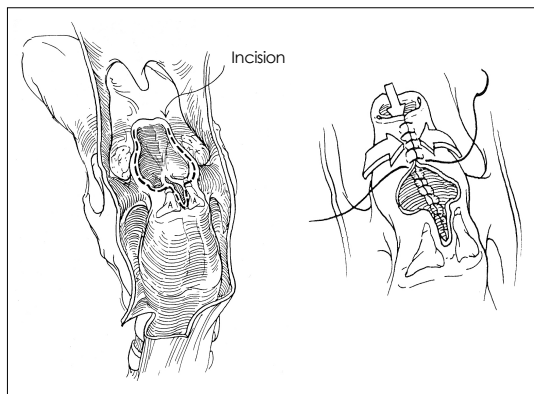


Fig. 3. Supraglottic laryngoplasty (Biller HF et al., Arch Otolaryngol 1983 ; 109 : 67-73).

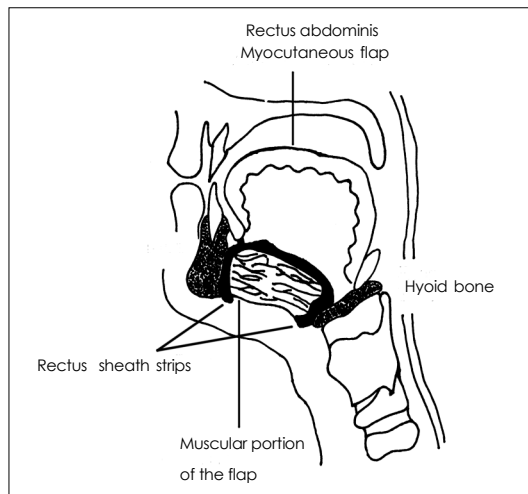


Fig. 4. Schematic illumination of the reconstructed tongue (Yamamoto Y et al., Plast Reconstr Surg 1998 ; 102 : 993-1000).

, 3)
 (sulcus)가
 , 4)
 , 5)
 , 6) 가
 가
 가
 , 7)
 , 14)15)
 가
 , 16)
 (Fig. 4)¹⁷⁾
 , 16)
 , 20% money pouch
 , 18)
 , 15) 8 cm , 9)
 가 (thoracodorsal
 , 15)
 , 19) (Fig. 5).

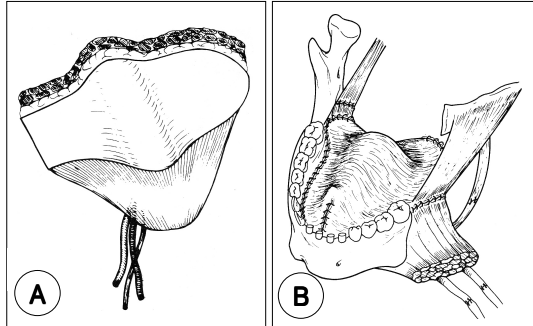


Fig. 5. Latissimus dorsi free flap. A : Flap as harvested, with musculocutaneous component, vessels, and nerve. B : Transverse sling created at oral-oro-pharyngeal isthmus by suturing of flap muscle to medial pterygoid and masseter (Haughey BH, Laryngoscope 1993 ; 103 : 1132-41).

가 ,
20)
봉합술
가
(circumdental suture)
가

술후 처치 및 재활

3
H₂O₂(hydrogen peroxide)

doppler

가 .

:

가
가
가
가
21)
(supraglottic diet)
가 ,
가
57~100%
22) 가 가 bolus
driving force ,
driving force ,
negative force가 ,
가
가
가
가
가
가
15)
30~40%
11)
artificial tongue, prosthetic
tongue, tongue denture
(Table 2).

Table 2. Functional results after total glossectomy with laryngeal preservation

Study	No of patient	Speech successful (%)	Aspiration	Swallowing successful (%)
Donaldson, 1968	14	50	Yes	57
Gehanno, 1992	80	63	Yes	77
Effron, 1981	24	100	No	100
Sultan, 1989	7	80	Yes	93
Weber, 1991	27	92	Yes	67
Tiwari, 1993	21	100	No	100
Sun, 2000	7	86	Yes	86
Rho, 2001	12	80	Yes	92

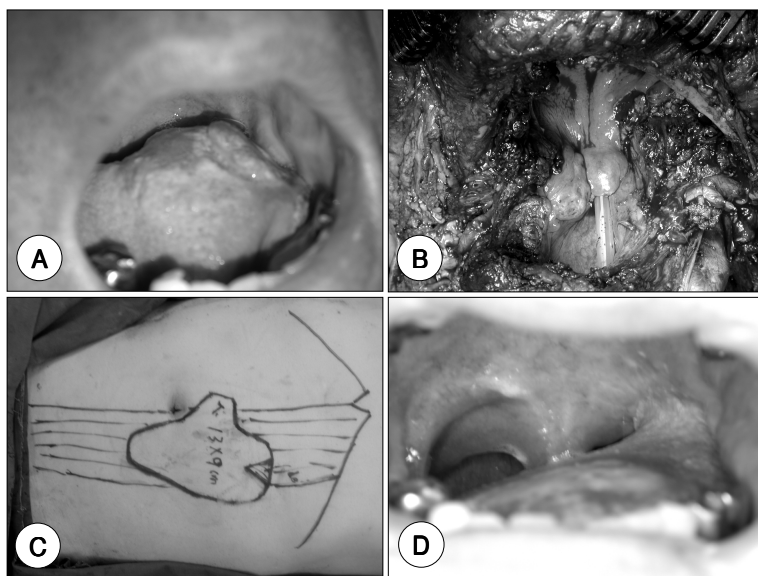


Fig. 6. Total glossectomy with rectus abdominis myocutaneous free flap reconstruction. A : Preoperative finding. B : Pull through approach. C : Flap design. D : postoperative finding.

예 후 5~25% 가 가
 가 가
 가 가
 5 40~50% 가
 18 24
 , , 가
 가 가
 20 2003 (Fig. 6) 20
 35 74 10:10 58
 3, 4
 10 20% 11,
 5 9% 4,

:

Table 3. The results of total glossectomy in Hallym University (n=20)

No	Sex	Age	Site	TNM stage	Operation	Approach	Reconstruction	RT	F/U	Status
1	M	41	Tongue	T3N0M0	TG	Mandible splitting	PMMC	+	42	NED
2	F	50		T4N0M0	TG+MM	Mandible splitting	FFF	+	20	DOD
3	M	58	Tongue	T3N0M0	TG+MM	Mandible splitting	RFFF	+	26	DWD
4	F	73	Tongue	T3N1M0	TG	Pull through	RFFF	+	24	DOD
5	M	35		T4N2bM0	TG+MM	Mandible splitting	LDFF+FFF	+	8	DWD
6	F	76	Tongue	T4N2bM0	TG+MM	Mandible splitting	PMMC	preOP+	2	DOD
7	F	41		T4N3M0	TG+MM	Mandible splitting	LDFF+PMMC	preOP+	6	DOD
8	F	68	Tongue	T3N2cM0	TG	Mandible splitting	RFFF	+	10	DWD
9	F	74	Tongue	T4N0M0	TG+MM	Mandible splitting	LDFF	-	6	DOD
10	M	61		T3N2cM0	TG	Mandible splitting	PMMC	-	3	DOD
11	F	40	Tongue	T3N2cM0	TG+MM	Mandible splitting	FFF+RFFF	+	14	NED
12	M	74	Tongue	T4N2cM0	TG	Lingual release	TRAM	+	6	NED
13	M	57	Tongue	T3N2bM0	TG	Pull through	TRAM	+	8	NED
14	F	67	Tongue	T3N2bM0	TG	Mandible splitting	TRAM	+	17	DWD
15	M	6		T3N2cM0	TG+MM	Pull through	TRAM	+	18	DWD
16	F	54		T3N2bM0	TG	Pull through	TRAM	+	3	NED
17	M	57	Tongue	T2N1M0	TG	Pull through	RFFF	+	25	NED
18	M	46	Tongue	T2N2aM0	TG	Lingual release	RFFF	+	13	NED
19	M	74		T3N2bM0	TG+MM	Mandible splitting	RFFF	+	19	DWD
20	F	57	Tongue	T3N0M0	TG	Lingual release	RFFF	+	13	DOD

TG : Total glossectomy, MM : Marginal mandibulectomy, SM : Segmental mandibulectomy, PMMC : Pectoralis major myocutaneous flap, FFF : Fibular free flap, LDFF : Latissimus dorsi free flap, RFFF : Radial forearm free flap, TRAM : Transpelvic rectus abdominis myocutaneous flap

가 4 , ,
 가 가 .
 1 .
 12 , pull through 5 , lingual release
 3 . 3 , 가
 5 , 7 , 가
 1 , 1 , 가
 가 1 .
 1 가 가 .
 2 42 7 (7/20, 35%)
 (Table 3). 가

결 론

가 가

중심 단어 :

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