

## 조기 하인두암의 수술적 후두보존

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### Surgical Laryngeal Preservation in Early-Staged Hypopharyngeal Cancer

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#### ABSTRACT

**Background and Objectives** : Hypopharyngeal cancer is aggressive, grows rapidly and often tends to spread through the submucosa combined with multiple "skip lesions" or tumor satellites. Therefore, even in the early stages, most patients require wide resection, usually including total laryngectomy followed by radiotherapy. However, it is obvious that, with consideration of quality of life, the laryngeal function and cancer control are equally important. The purpose of this study is to evaluate the oncologic and functional results of laryngeal conservation surgery for early-staged hypopharyngeal cancer. **Subjects and Method** : Fourteen patients with T1 or T2 carcinoma of the various subsites of the hypopharynx, including the medial wall of pyriform sinus (four patients), lateral wall of pyriform sinus (four patients), and posterior pharyngeal wall (six patients), who were treated surgically between 1992 and 2000, were studied. All except one patient who had skin graft underwent surgical resection of the primary tumor with laryngeal preservation and immediate reconstruction with forearm free flap transfer or primary closure. Follow-up period was 6-54 months. **Results** : One patient died in the immediate postoperative period due to myocardial infarction. However, other postoperative complications were minimal. There was no evidence of disease for at least 1 postoperative year in 7 of 13 patients (53.8%) with hypopharyngeal cancer who have been performed the conservation surgery. All patients except one who died of myocardial infarction, were decannulated. All but 2 patients achieved oral intake without continuous aspiration. Of these 2 patients, one patient had severe dysphagia due to the bulkiness of the reconstructed flap and he was fed through a gastrostomy tube. The other patient died of myocardial infarction before the trial of oral diet. **Conclusion** : Our data suggest that if the precise evaluation of the extent of the tumor and a careful selection of the well adjustable patients are done preoperatively, the laryngeal conservation surgery in early hypopharyngeal cancer may be valuable in terms of oncologic and functional aspect. (Korean J Otolaryngol 2004;47:252-7)

**KEY WORDS** : Hypopharyngeal neoplasm · Surgery · Survival · Postoperative complication.

연도	수술적 후두보존	전체 환자	비율 (%)
2003	7	9	30%
2003	10	6	5
합계	17	15	113

1) : 2003 7 9 / : 2003 10 6  
: , 120 - 752 : 134

2) : (02) 361 - 8481 · : (02) 393 - 0580  
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3) : 가 .  
4-6) : 가 .

가 14 6 .

1 2 2 1 1 3 3

1 4 6

1 1

25

1992 2 2000 2 8

66 (

:51 , :12 , :3 ) 11 ,

가 14

(Table 1). 14

61 6

가 13 , 가 1 . 4 3

, , , , , 4 3

, , , , , 1

가 8 , 6 , 4

2002 AJCC 3 , ( ) 1 .

T1 1 , T2가 5 3 2 severe dysplasia ,

8 T1 1 carcinoma in situ 1

**Table 1.** Case profile of conservation surgery in hypopharyngeal cancer

Case	Sex/Age	cTN	Op.	pTN	Recon.	Margin	Cx.	Oral feeding (POD)	Decannulation (POD)	post-op RTx	F/U period	Outcome	Failure site
1	M/68	T1N0	PP	T1N0	Pri closure	+	None	11	.	.	24	NED*	Pri. site
2	M/79	T1N0	PP	T2N0	Forearm	-	None	14	17	.	loss		
3	F/62	T1N0	PP	T1N0	Forearm	-	None	15	16	.	12	NED	
4	M/54	T1N2b	ESPL	T2N2b	Pri. closure	-	None	17	19	Done	12	AWD	Liver mets
5	M/75	T1N2a	PP	T2N2b	Forearm		None	16	18	Done	12	AWD	Liver mets
6	M/74	T1N0	ESPL	T1N0	Pri. closure	-	Flap dehiscence	20	23	.	13	NED	
7	M/59	T1N2a	PP	T1N0	Forearm	-	None	15	17	.	24	NED	
8	M/66	T1N0	ESPL	T1N0	Pri. closure	-	None	14	16	.	20	NED	
9	M/67	T2N0	PP	T1N0	Skin graft	-	None	18	22	.	52	AWD <sup>†</sup>	Esophagus
10	M/65	T2N2c	PP	T2N2c	Forearm	-	None	.	.	.	.	DOID	MI
11	M/58	T2N0	PP	T2N0	Forearm	-	None	17	18	.	12	NED	
12	M/64	T2N0	PP	T2N2c	Forearm	+	Dysphagia	.	22	Done	6 mon.	DOD	Pri. site
13	M/57	T2N0	PP	T2N0	Forearm	+	None	55	23	Done	54	NED	
14	M/61	T1N2b	PP	T2N2b	Forearm	+	None	22	27	Done	42	NED	

\*total laryngopharyngoesophagectomy with gastric pull-up at POD 3 months due to recurred hypopharyngeal cancer, †primary site was controlled but esopharygeal cancer was developed at POD 49 months. 1, 4, 6, 8 : medial wall of pyriform sinus, 2, 3, 5, 7 : lateral wall of pyriform sinus, 9 - 14 : posterior hypopharyngeal wall, PP : partial pharyngeomy, ESPL : extended supraglottic partial laryngectomy, Op : operation, Recon. : reconstruction, Cx. : complication, RTx : radiotherapy, F/U period : follow up period, Pri. : primary, NED : no evidence of disease, AWD : alive with disease, DOD : dead of disease, DOID : dead of intercurrent disease.

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carcinoma in situ  
 4 3 1 3 1  
 13 12 (92%) 가  
 14 10 4 20 (11~55 ),  
 10 21 (9~27 ) 가  
 1 9 1  
 6  
 2 12 13 가  
 2 21 (11~56 ) 가  
 1 25 (13~36 ) 가  
 , 1 T1  
 . cN0 9 2  
 7 , 3 1 2003 1  
 , 4 . cN+ 1  
 5 13 7 (53.8%) . 7 3 2  
 4 ,  
 1 , 1 1 3 , 1  
 4 , 1 가  
 6  
 가 cN+ 5 3 2  
 가 , cN+ 5 11 , 12 가  
 N2a가 4 , N2c가 1 , cN0 9 가 1 50  
 7 1 가 2  
 N2b . cN0  
 가  
 가 가 가  
 66 14 (21%) 51 8 가 가  
 (16%) 가 가  
 4 12 가 가  
 6 (50%) 가  
 가  
 2 . 1 5 30% 2)  
 2  
 7-9)  
 5 가 가 ,



Teichgraeber <sup>18)</sup> 4 cm

	66	14 (21%)	
T1			
T2	13	7 (53.8%)	1
	8	3	2

가

가 <sup>19)</sup> 4%  
(6~12 )

<sup>20)</sup>

14	1	
13	1	
	1	가
		T2
가 2 × 2.5 cm		
가 4 × 4 cm		
	1	13
3	가	
	가	가
	가	
	40	
14	12	가 98
98		

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