

후두암 치료후 삶의 질 평가

남성일 · 송달원 · 안병훈 · 최동하 · 손진식

Quality of Life after Treatment of Laryngeal Carcinoma

**Sung Il Nam, MD, Dal Won Song, MD, Byung Hoon Ahn, MD,
Dong Ha Choi, MD and Jin Sik Sohn, MD**

Department of Otolaryngology, School of Medicine, Keimyung University, Taegu, Korea

ABSTRACT

Background and Objectives : Head and neck cancer strikes at some of the most basic human functions, including verbal communication, social interaction, eating and breathing. Traditionally, the success of cancer treatment has been assessed by objective measures such as disease-free intervals, cure rates, and complication rates. Recently, however, there has been an increased awareness of the need to evaluate treatment effects on the individual's quality of life (QOL). The purpose of this study is to assess quality of life following various types of treatment for laryngeal carcinoma. **Material and Methods :** We assessed a quality-of-life after treatment of laryngeal carcinoma patients using WHOQOL-BREF questionnaires which was employed by the WHOQOL-group. Fifty-seven patients with laryngeal carcinoma were contacted with the completion of the survey : Radiotherapy only (n=24), conservative laryngectomy (n=16) and total laryngectomy (n=17). **Results :** This study demonstrates that there was no significant difference in QOL in physical health, social relationship and environment between the radiotherapy-only-group and the operation-group (conservative & total laryngectomy). However, the radiotherapy-only group had significantly better (p<.05) QOL on the psychological health domain, especially regarding body image and negative feelings than those of the operation group. **Conclusion :** The negative feeling, the body image change and the poor ability of communication have a negative impact on QOL in the operation group, especially in the total laryngectomy. Providing positive psychosocial adjustment training and voice rehabilitation programs for those who underwent total laryngectomy would be a great help in enhancing their quality of life. (Korean J Otolaryngol 2001;44:973-81)

KEY WORDS : Quality of life · Larynx · Carcinoma · WHOQOL-BREF.

가

, Quality of Life(QOL)

가

.³⁾ QOL

Grogono & Woodgate가

가

가 가 .⁴⁾⁵⁾

: 2001 4 21 / : 2001 6 27
: , 700 - 712 194

: (053) 250 - 7715 · : (053) 256 - 0325
E - mail : entnamsi@hanmail.net

WHO WHOQOL group⁶⁾

가

QOL 가 가

Sintaxe SPSS

0 100

Kruskal - Wallis t -

Table 1. General characteristics of laryngeal cancer patients

Characteristics	Total laryn- gectomy	Conserva- tive surgery	Radioth- erapy	Over- all
Mean age, (Yr)	65.8	66.8	65.1	
No. of patients	17	16	24	57
Level of education				
<High school	15	10	15	40
High school	2	4	6	12
>High school	-	2	3	5
Living arrangem- ent living alone	1	4	3	8
Economic status : monthly income (won)				
>200	-	-	2	2
150 - 200	-	-	-	0
100 - 150	-	2	2	4
50 - 100	5	6	9	20
< 50	12	8	11	31

Table 2. WHOQOL-BREF domains of QOL

Domain	Facets incorporated within domains	
I. Physical health	Pain and discomfort	(item 11)
	Sleep and rest	(item 23)
	Energy and fatigue	(item 18)
	Mobility	(item 33)
	Activities of daily living	(item 24)
	Dependence on medication	(item 12)
	Work capacity	(item 25)
II. Psychological	Positive feeling	(item 13)
	Thinking, learning, memory	(item 15)
	Self-esteem	(item 26)
	Body image and appearance	(item 19)
	Negative feelings	(item 34)
	Spirituality/religion	(item 14)
III. Social relation- ships	Personal relationships	(item 27)
	Social support	(item 29)
	Sexual activity	(item 28)
IV. Environment	Freedom, physical safety	(item 16)
	Home environment	(item 30)
	Financial resources	(item 20)
	Health and social care	(item 31)
	Information	(item 21)
	Recreation leisure activity	(item 22)
	Physical environment	(item 17)
	Transport	(item 32)

1989 1 1997 12

3

151 60 가

3 57

24 ,

16 , 17 .

17

3 , 14 .

57 (62)

57

52 , 5 , 40 8 , 50 16

, 60 26 , 70 7 60 가 가

65 . 70.1%

, 21%, 8.8%

가 50 54.4% 가 50

100 35.1%, 100 10.5%

, 가

(Table 1).

1

, 1 34

1 8 , 9 34 WH -

QQOL - BREF(26) . WHOQOL - BREF

I(7) (physical health),

II(6) (psychological), III(3)

(social relationships), IV(8)

(environment)

(Table 2). 2 (9, 10) QOL

. 가 2 가

35 , 36

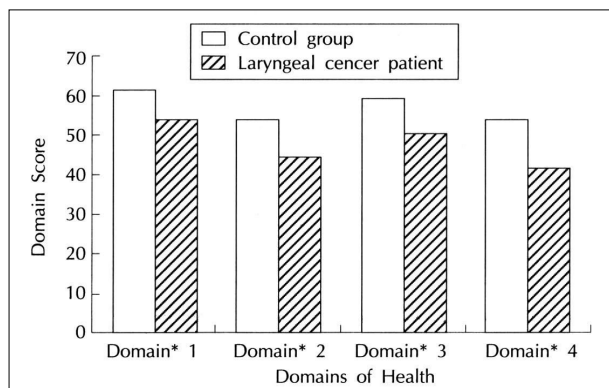


Fig. 1. Comparison of health related quality of life for patients with laryngeal cancer vs. control group. Domain 1 : Indicates physical health, Domain 2 : Psychological health, Domain 3 : Social relationship, Domain 4 : Environment (* : $p < 0.05$).

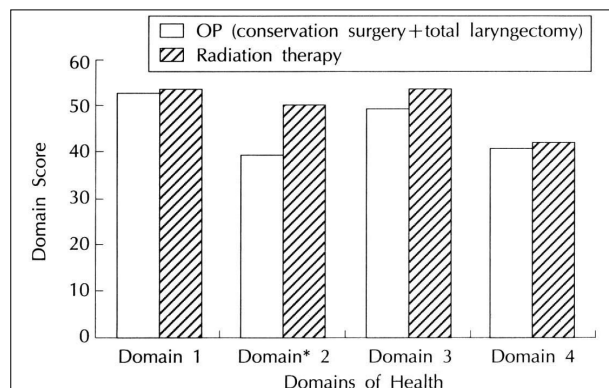


Fig. 3. Comparison of health related quality of life for operation group (total laryngectomy and conservation laryngectomy) vs. radiation therapy. Domain 1 : Indicates physical health, Domain 2 : Psychological health, Domain 3 : Social relationship, Domain 4 : Environment (* : $p < 0.05$).

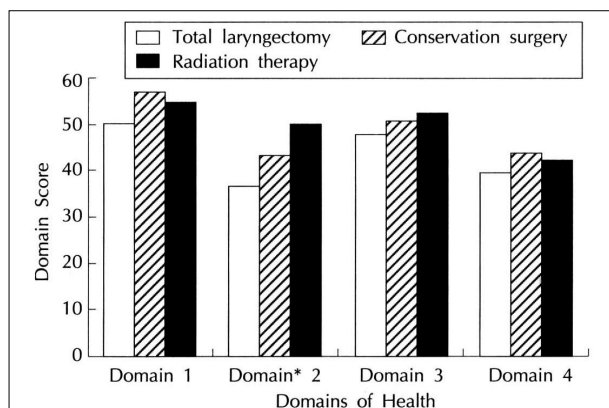


Fig. 2. Comparison of health related quality of life for total laryngectomy vs. conservation surgery vs. radiation therapy. Domain 1 : Indicates physical health, Domain 2 : Psychological health, Domain 3 : Social relationship, Domain 4 : Environment (* : $p < 0.05$).

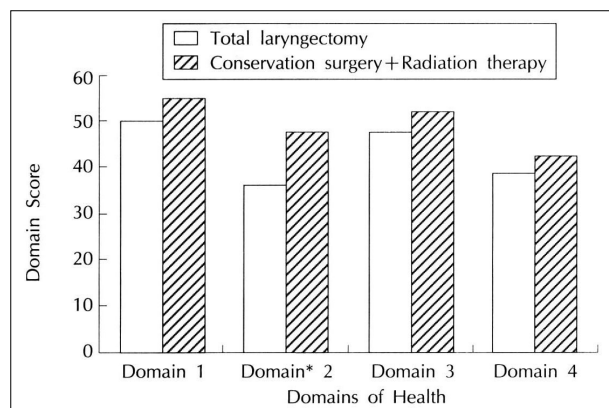


Fig. 4. Comparison of health related quality of life for total laryngectomy vs. conservative laryngectomy and radiation therapy. Domain 1 : Indicates physical health, Domain 2 : Psychological health, Domain 3 : Social relationship, Domain 4 : Environment (* : $p < 0.05$).

p 0.05

(35.5 42.8 50.2)

가

($p < 0.05$)(Fig. 2).

)

WHOQOL - BREF

(53.0 53.7), (48.9

52.4), (41.0 42.1)

(39.0 50.2)

($p < 0.05$)(Fig. 3).

()

(49.7 53.2),

(35.5 47.2),

(47.0 48.5),

(38.6 42.8)

($p < 0.05$)(Fig. 4).

가

Table 3. Problems of swallowing

For swallowing	Total laryngectomy	Conservation surgery	Radiation therapy
Generally possible	17	15	23
Difficult	-	1	1
Greatly difficult	-	-	-

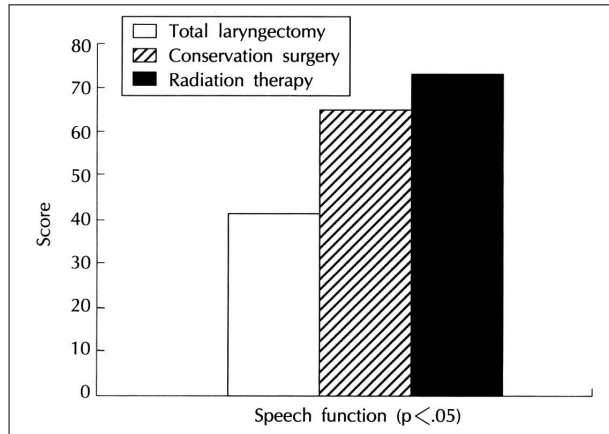


Fig. 5. Comparison of voice and quality of life for total laryngectomy vs. conservative laryngectomy vs. radiation therapy.

(welfare)

(well - being)

가

가

가

가
(WHO)

WHOQOL group
100 26

1996 WHOQOL - BREF¹⁰⁾

WHOQOL -

33

Tazaki¹¹⁾

WHOQOL

가

가
WHOQOL - BREF

가

4

가
¹⁰⁾

가

가

WH -

QOL - BREF

가가

가

가

가

Skevington¹²⁾

가

Terrell⁸⁾

Finizia¹³⁾

Herranz¹⁴⁾

가

Herranz¹⁴⁾

(50.2 42.8 35.5)

가

¹⁵⁾ Terrell⁸⁾

가

가

가 가⁴⁾

Sakai¹⁶⁾

Herranz¹⁴⁾

가

가

가

가⁸⁾¹⁷⁾

가

Hong⁴⁾

가 , Herranz¹⁴⁾

95%가

¹⁴⁾¹⁸⁾ Finizia¹³⁾

가

가

가

Phillips

²⁰⁾

Meyers¹⁹⁾

Herranz¹⁴⁾

- 1) Song DW, Kim HJ, Jeong HS, Kim YH, Ahn JH, Lee BS, *et al.* Treatment result in laryngeal cancer patient submitted to surgical treatment. *Korean J Otolaryngol* 1999;42:1284-9.
- 2) Stewart MG, Chen AY, Stach CB. *Outcomes analysis of voice and*

- quality of life in patients with laryngeal cancer. *Arch Otolaryngol Head Neck Surg* 1998;124:143-8.
- 3) Otto RA, Dobie RA, Lawrence V, Sakai C. *Impact of a Laryngectomy on quality of life: Perspective of the patient versus that of the health care provider.* *Ann Otol Rhinol Laryngol* 1997;106: 693-9.
- 4) Hong KP, Chang SH, Kim KS, Kim KH, Park CK, Lee BD, et al. *Assessment of quality of life in laryngectomees.* *Korean J Otolaryngol* 1996;39:837-47.
- 5) Wang SG. *Quality of life (QOL) of the patients following treatment for laryngeal cancer.* *Korean J Otolaryngol* 1996;39:1464-71.
- 6) The WHOQOL group. *The World Health Organization Quality of Life assessment (WHOQOL): Development and general psychometric properties.* *Soc Sci Med* 1998;46:1569-85.
- 7) Drettner B, Ahlborn A. *Quality of life and state of health for patients with cancer in the head and neck.* *Arch Otolaryngol Head Neck Surg* 1983;96:307-14.
- 8) Terrell JE, Fisher SG, Wolf GT. *Long-term Quality of life after treatment of laryngeal cancer.* *Arch Otolaryngol Head Neck Surg* 1998;124:964-71.
- 9) Han HM, Yeum TH, Sin YO, Kim GH, Yoon DJ, Jeong GJ. *A standardization study of Beck depression inventory in Korea.* *J Psychiatr Assoc* 1986;25:487-502.
- 10) The WHOQOL group. *Development of the World Health Organization WHOQOL-BREF quality of life assessment.* *Psychol Med* 1998;28:551-8.
- 11) Tazaki I, Nakane Y, Endo T, Kakikawa F, Kanol K, Kawano H. *Results of a qualitative and field study using the WHOQOL instrument for cancer patients.* *Jpn J Clin Oncol*;1998. p.134-41.
- 12) Skevington SM. *Investigating relationship between pain and discomfort and quality of life, using the WHOQOL.* *Pain* 1998; 76:395-406.
- 13) Finizia C, Hammerlid E, Westin T, Lindstrom J. *Quality of life and voice in patients with laryngeal carcinoma: A posttreatment comparison of laryngectomy (salvage surgery) versus radiotherapy.* *Laryngoscope* 1998;108:1566-73.
- 14) Herranz J, Gavilan J. *Psychosocial adjustment after laryngeal cancer surgery.* *Ann Otol Rhinol Laryngol* 1999;108:990-7.
- 15) Lazarus CL, Logemann JA, Pauloski BP, Colangelo LA, Kahrilas PJ, Mittal BB. *Swallowing disorders in head and neck cancer patients treated with radiotherapy and adjuvant chemotherapy.* *Laryngoscope* 1996;106:1157-66.
- 16) Takeo Sakai. *Psychosomatic analysis of laryngectomized patients.* *J Otolaryngol Jpn* 1994;97:1412-22.
- 17) Desanto LW, Olsen KD, Perry WC, Rohe DE, Keith RL. *Quality of life after surgical treatment of cancer of larynx.* *Ann Otol Rhinol Laryngol* 1995;104:763-9.
- 18) Deleyiannis FWB, Weymuller EA, Coltrera MD, Futran N. *Quality of life after laryngectomy: Are functional disabilities important?* *Head Neck* 1999;7:319-24.
- 19) Meyers AD, Aarons B, Suzuki B. *Sexual behavior following laryngectomy.* *Ear Nose Throat J* 1980;159:327-9.
- 20) Phillips T, FRCPC, Stanton B, Provan A, Lew R, Boston Massachusetts. *A study of the impact of leg ulcer on quality of life: Financial, social, and psychologic implications* *J Am Acad Dermatol* 1994;31:49-53.

□ 1 □

- 가
- 2 ()
1. ? () ()
2. ? 19
3. ?
- () () () ()
- () () ()
4. ?
- () () () ()
- () ()
5. ?
- 6-1. 가 ?().
- () () ()
- () () () ()
- () () ()
- ()
- (,) ()
- ()
- () _____
- 6-2. ?
- ? _____
7. ?
- 300 () 200 300 () 150 200 () 100 150 ()
- 50 100 () 50 ()
8. ?
- : _____
- 8-1. 가 ?
- () 가 ()
- 가 ()
9. 가 ?

가

10. ?

11. $2 \left(\begin{array}{c} \text{ } \\ \text{ } \end{array} \right)$?

12. 가 ?

13. ?

14. ?

15. ?

16. ?

17. ?

$2 \left(\begin{array}{c} \text{ } \\ \text{ } \end{array} \right)$

18. 가 ?

19. ?

20. 가 ?

21. ?

22. (가) 가 ?

$2 \left(\begin{array}{c} \text{ } \\ \text{ } \end{array} \right)$, ,

23. () ?

24. ?

25. ?

26. ?

27. ?

28. ?

29. ?

30. ?

31. ?

32. ?

33. ?

, 가 ,

34. , , , ?

35. ?

가 가 가

36. ?

()
() ()
() () ()