

상악동암의 5년 생존율과 예후인자

이봉희¹ · 표경보¹ · 이영선¹ · 김순곤¹ · 이윤우¹ · 이강대¹ · 유태현¹ · 문창우²

5-Year Survival Rate of Maxillary Sinus Carcinoma and Prognostic Factors

Bong Hee Lee, MD¹, Kyung Bo Pyo, MD¹, Young Sun Lee, MD¹,
Sun Gon Kim, MD¹, Yun-Woo Lee, MD¹, Kang Dae Lee, MD¹,
Tai Hyun Yu, MD¹ and Chang Woo Moon, MD²¹Department of Otolaryngology and ²Radiation Oncology, Kosin University,
College of Medicine, Pusan, Korea

- ABSTRACT -

Background and Objectives : This study was designed to evaluate the influence of several different prognostic factors in determining survival in patients treated for carcinoma of maxillary sinus. We performed this study to investigate the prognostic factors and 5-year survival rate of maxillary carcinoma. **Materials and Methods :** A retrospective study of 108 patients with carcinoma of maxillary sinus treated between January 1981 and December 1991 was undertaken. Hospital charts were reviewed collecting demographic, clinical, radiographic, and pathologic finding, which were correlated with treatment and subsequent follow-up. This results included 64 men and 44 women with an average of 54.6 year-old. The most commonly encountered histologic type was squamous cell carcinoma. **Results :** The most significant predictors of poor prognosis were advanced T stage and involvement of orbit and neck node metastasis. Involvement of pterygopalatine fossa invasion was not associated with poor prognosis. **Conclusion :** In spite of advance in diagnostic technique and surgical therapy, maxillary sinus cancer is poor prognostic disease. Diagnosis at an earlier stage is associated with improved outcome. (*J Clinical Otolaryngol 1999;10:238-243*)

KEY WORDS : Carcinoma of maxillary sinus · Survival analysis · Prognostic factor.

서 론

가

가

2)

60 90%

가

0.

8%

3%

.¹⁾

.³⁾

: 1999 8 7

: 1999 10 6

: , 602 - 702 34

가

5 15%

.⁴⁾

가

가

: (051) 240 - 6244 · : (051) 245 - 8539

E - mail : bhlee@ns.kosinmed.or.kr

35% 가 5)6)

가

가 가 7)

가

5

연구 대상과 방법

관찰 대상

1981 1 1991 1

148

가 108

16

가 24

관찰 방법

Table 1. Prognostic factors used in univariate analysis

Histological type	T stage	Tumor spread	Treatment
*SCC	T1 - T2	Orbit	Surgery
Adeno ca.	T3	Pterygoid fossa	†RT
Mucoepidermoid ca.	T4	Cervical node	Surgery + RT
Adenocystic ca.			

*SCC : squamous cell carcinoma †RT : radiotherapy

: 5

5

(Table 1).

임상 소견

108 10 80
54.6 가 64 가 44
1.5 : 1
(47%) 가

(30%),

(16%),

Table 2. Presenting symptoms

Main symptom	No. of cases
Pain	23
FACIAL	
Numbness	3
Swelling	23
NASAL	
Bleeding	8
Obstruction	6
Discharge	16
ORAL	
Swelling	9
Ulcer	7
EYE	
Proptosis	3
Diplopia	1
EAR	
Otagia	2
MOUTH	
Trismus	1

Table 3. Histologic diagnosis

Histological type	No. of Case
Squamous cell carcinoma	88
Adenoid cystic carcinoma	7
Adenocarcinoma	4
Mucoepidermoid carcinoma	4
Fibrous histiocyctoma	1
Chondrosarcoma	1
Melanoma	1
Rhabdomyosarcoma	1
Plasmacytoma	1

(7%) (Table 2). 8
 , 13 (12%)가 (Table 5).
 병리조직학적 소견 88 가 , (Table 3).
 임상 병기 1997 AJCC(American Joint Co-
 mmittee on Cancer)⁸⁾

Table 4 가
 T3가 23.2%, T4가 68.5%
 가 26 ,
 가 19 .
 108 28 , 6
 가

치료 방법
 , T2
 ,
 . T3 T4
 가 가
 . 20 , 41
 가 27
 가 24 ,
 가 17 ,
 가 6 .
 50 Gy 60 Gy ,

70 Gy . 20
 (Table 5).
 통계학적 처리
 Kaplan - Meier
 log - rank test
 p<0.05

Table 4. TNM staging*

T stage	NM stage	No. of cases
T2	N0M0	9
T3	N0M0	20
	N0M1	1
	N1M0	4
T4	N0M0	48
	N0M1	2
	N1M0	13
	N1M1	3
	N2M0	8

*AJCC classification(1997)

Table 5. Treatment modalities by T-stage

	T2	T3	T4
Surgery	7	8	5
Surgery+Radiotherapy	1	8	18
Radiotherapy	1	9	31
Others*	0	0	20

*Included chemotherapy+radiotherapy or chemotherapy only

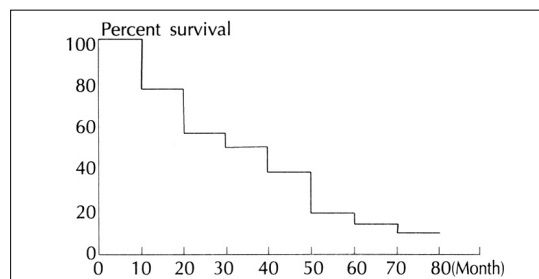


Fig. 1. Overall survival rate of maxillary carcinoma.

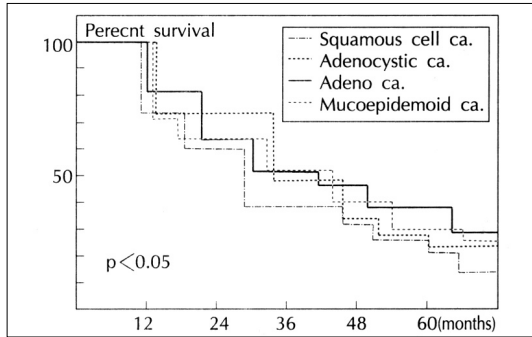


Fig. 2. Survival rate by histological cell type.

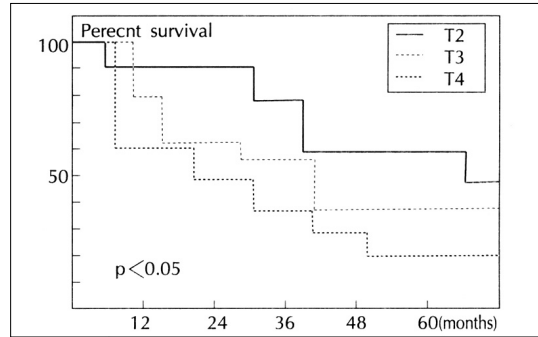


Fig. 3. Survival rate by T-stage.

결 과

전체 생존율

3 31.5%, 5 20.
4% (Fig. 1).

조직학적 분류에 따른 생존율

3 35%, 5 23%
3 48%, 5 28%
3 50%

3 가
(Fig. 2).

임상 병기에 따른 생존율

T2가 55.6%, T3
가 36.3%, T4가 18.7% (Fig. 3).
가 26 20 9
, 6 1
가 5 , 1

($p < 0.05$).

안와와 익구개와 및 경부림프절 전이에 따른 생존율

26 3 11.5%,
5 3.8% , 19

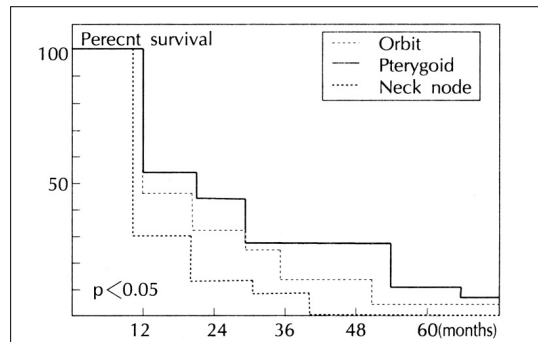


Fig. 4. Correlation of survival in patient with orbital involvement, pterygoid invasion and neck node metastasis.

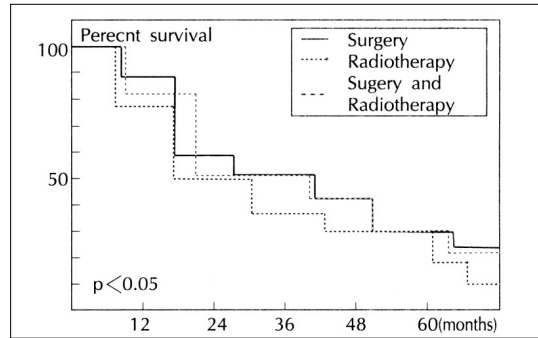


Fig. 5. Survival rate by treatment modality.

3 26.3%, 5 9.3%
가 26 3

7.1% , 5 (Fig. 4).
가
($p < 0.05$).

치료 방법에 따른 생존율
5
31.6%,
(Fig.5).

고 찰

Alvarez¹²⁾ 가 , 55.6%,
T3 36.3%, T2 5 T4 18.7%
(p<0.05).
가 CT, MRI

가 ,

가 ,

가 ,

Ilane⁹⁾ 7.6 Gu -
4) 75% 8 Bush
가 T3 Weymuller¹³⁾
T3 T4 가 91.7%
Lareo²⁾ Shimizu¹⁰⁾ 가
20.4% 3 31.5%, 5 20.4%, 5 9.3%
가 3 7.1% , 5
가 25.9% 가 가 가
가 가 가
81.5% 4)6)14)
5 10 70%
Knecht¹¹⁾ 3 5 19 86%
3 35%, 5 23% 가 , 5)15)
3 5 가 , en bloc
가 , 가 가

가
 Alvarez ¹²⁾ 가
 가
 20 65%
 5 5)6)16)17)
 3 25.5%, 5
 19.1%
 3 40%, 5 31.6%
 3% 5 31.6% 가
 가
 가 3 47.
 T3
 가
 결론
 가
 5
 20.4%
 가
 가
 가
 중심 단어 :

G, Kelly J. *Chemotherapy for Paranasal Sinus Carcinoma: A 10-Year Experience at Wayne State University. Cancer* 1998;62:1-5.

- 2) Lareo AC, Luce D, Leclerc A. *History of previous nasal disease and sinonasal cancer: A case-control study. Laryngoscope* 1992;102:439-42.
- 3) Spiro JD, Soo KC, Spiro RH. *Squamous carcinoma of nasal cavity and paranasal sinus. Am J Surg* 1989;158:328-32.
- 4) Bush SE, Baghsaw MA. *Carcinoma of the paranasal sinuses. Cancer* 1982;50:154-8.
- 5) Lavertu P, Robert JK, Kraus DH. *Squamous cell carcinoma of the paranasal sinuses: The Cleveland Clinic experience. 1977-1986. Laryngoscope* 1989;99:1130-6.
- 6) Sisson GA, Toriumi DM, Atiyah RA. *Paranasal sinus malignancy: A comprehensive update. Laryngoscope* 1989;99:143-50.
- 7) Osguthorpe JD, Patel S. *Craniofacial approaches to sinus malignancy. Otolaryngol Clin North Am* 1995;28: 1239-57.
- 8) American Joint Committee on Cancer. *Manual for staging of cancer, 5th ed Philadelphia; Lippincott-Raven Publishers; 1997.*
- 9) Gullane PJ, Conley J. *Carcinoma of the maxillary sinus: a correlation of the clinical course with orbital involvement, pterygoid erosion, or pterygopalatine invasion and cervical metastasis. J Otolaryngol* 1983;12:141-5.
- 10) Shimizu H, Horowa J, Saiko H. *Chronic sinusitis and woodworking as risk factors for cancer of the maxillary sinus in northeast Japan. Laryngoscope* 1989;99:58-61.
- 11) Knecht PP, Jong PC, Andel JG. *Carcinoma of the paranasal sinuses: Results of a prospective pilot study. Cancer* 1985;56:57-62.
- 12) Alvarez I, Suarez G, Rodrigo JP, Caminero MJ. *Prognostic factors in paranasal cancer. Am J Otolaryngology* 1995;16(2):109-14.
- 13) Weymuller EA, Reardon EJ, Nash D. *A comparison of treatment modalities in carcinoma of the maxillary antrum. Arch Otolaryngol* 1980;106:625-9.
- 14) Cheng VST and Wang CC. *Carcinoma of the paranasal sinuses. Cancer* 1977;40:3038-41.
- 15) Flores BD, Anderson DW, Doyle PJ, Jackson RM, Morrison MD. *Paranasal sinus malignancy: a retrospective analysis of treatment method. J Otolaryngol* 1984;13: 141-6.
- 16) Beale FA, Garrett PG. *Cancer of the paranasal sinuses particular reference to maxilla sinus cancer. J Otolaryngol* 1983;12:377-82.
- 17) Issacs JH, Mooney S, Mendenhall WM. *Cancer of the maxillary sinus treated with surgery and/or radiation therapy. The Am Surgeon* 1990;56:327-30.

REFERENCES

- 1) Lorusso P, Tapazolou E, Kish JA, Ensley JF, Cummings