Carcinoma of the Epipharynx

—A Retrospective Investigation of 16 Patients—

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Received for publication April 10, 1982

Summary: A retrospective review of 16 patients of carcinoma of the epipharynx treated at Kurume University Hospital from 1971 to 1980 was completed. Thirteen patients underwent curative treatments and 3 were subjected to palliative treatments. The results of this retrospective study is summarized as follows: 1) In the 13 patients of curative treatments, both 3- and 5-year cumulative survival rates calculated by the actuarial method were 17.8%. 2) Of 9 deaths in the curative treatment group, the cause of death was primary lesion in 7, unknown in 1 and intercurrent disease in 1.

Key words: carcinoma — epipharynx — carcinoma of epipharynx — survival rate — cause of death

Introduction

Carcinoma of the epipharynx is one of the most difficult head and neck cancers to be treated successfully. Mihashi et al. (1976) previously reviewed 15 cases treated at Kurume University Hospital in 1960-1970. The estimated 5-year survival rate was 29% or 4/14. There were 10 deaths, of which 8 were from primary tumor, 1 from cervical metastasis and 1 from distant metastasis. On the basis of these results, we felt that further effort to eradicate the primary lesion and prevent the local recurrence was essential to improve the survival rate. However, we have not been able to establish any therapeutic modalities which brought significant improvements in the results.

The purposes of this paper are to review the cases treated between 1971 and 1980 and to obtain some suggestions for the future improvements in managing this difficult pathology.

Materials and Methods

During the 10 years from January 1, 1971 to December 31, 1980, 16 patients with histologically proven carcinoma of the epipharynx were treated at the Department of Otolaryngology, Kurume University Hospital. There were no previously treated patients in this series. There were 10 males and 6 females. Their age ranged from 22 to 73 years with a mean age of 51 years.

Table 1-3 present the distribution by site of lesion, sex, T and N categories and stage grouping. The classification of the site, TNM categorization and stage grouping are based on the UICC TNM classification (UICC, 1978). Among the 16 cases, the site of the lesion was the postero-superior wall in 11 and the lateral wall in 5. As regards sex, there were 10 males and 6 females. With respect to T category there were 1 T1 (6%), 5 T2 (31%), 6 T3 (38%), and 4 T4 (25%). One case (6%) was staged N0, 5 (31%) were N1, 10 (63%)

TABLE 1
Distribution of 16 subjects by site of lesion and sex

Site \ Sex	Male	Female	Total
Postero-superior wall	7	4	11
Lateral wall	3	2	5
Total	10	6	16

TABLE 2
Distribution by site and T and N categories

		N0	N1	N2	N3	Total
Postero-superior wall	T1	1				1
	T2	1		4		5
	T3	2		1		3
	T4			2		2
Lateral wall	T1					0
	T2					0
	T3	1			2	3
	T4		1		1	2
Total		1	5	0	10	16

One case of postero-superior wall T4N3 was M1 case whereas all the other cases were M0.

TABLE 3
Distribution by site and stage grouping

Site \ Stage	I	II	III	IV	Total
Postero-superior wall			5	7	12
Lateral wall			1	3	4
Total	0	0	6	10	16

were N3. All the 16 cases were staged M0 except for 1 case which was classified M1 (pulmonary metastasis). With respect to stage grouping, there were 6 cases of stage III and 10 cases of stage IV.

Follow-up examinations were indicated twice a month during the first 6 months, once a month during the following 6 months, once every 2 months during the

second year, once every 3 months during the third year, once every 6 to 12 months after the third year. Questionnaires were used to determine the status of those patients who did not return to follow-up examinations. Analysis of the results of the treatments was based on the status on May 31, 1981.

Results

The results will be presented chiefly for those patients who underwent curative treatments. The results of palliative treatments will be described separately in the latter part of this section.

1. Survival rate

Of the entire 16 patients, 13 underwent curative treatments. The cumulative survival rate of these 13 patients is presented in Fig. 1. It was calculated by the actuarial method (UICC, 1974). The onset chosen to compute survival is the date of hospitalization which coincided within a few days of initiation of treatment. The 3- and 5-year cumulative survival rates were 17.8 %, equally.

Fig. 1. Cumulative survival rate calculated by the actuarial method. 13 case treated in 1971-1980

With respect to 3- and 5-year survival rates by the site of the primary lesion, T category, N category and stage grouping, statistical analysis could not be used because of the small number of cases in each group.

2. Cause of death

The cause of death was classified and defined as follows:

(1) Death from the tumor present

a. Death from primary lesion (T).

Patients who died with primary lesion uncontrolled with or without neck and/or distant metastasis were classified into this category.

b. Death from neck metastasis (N).

Patients who died with neck metastasis uncontrolled, with primary lesion controlled with or without distant metastasis were classified into this category.

c. Death from distant metastasis (M).

Patients who died with distant metastasis with primary and neck controlled were classified into this category.

d. Surgical death.

Patients who died within 30 days after major surgical treatment were classified into this category.

e. Death from complication.

Patients who died of complications caused by any therapeutic intervention were classified into this category. Surgical death is

one kind of death resulting from complications.

f. Unknown.

Dead patients of whom no information about the cause of death was available were classified into this category.

(2) Death from intercurrent disease

Patients who died of intercurrent disease and had no evidence of the carcinoma present were classified into this category. In instances when a patient had evidence of the carcinoma present, he (she) was classified as dead with tumor even if the direct cause of death was obviously an intercurrent disease.

These definitions are primarily based on the proposal by the Japan Society of Head and Neck Tumor (1981). The deaths from primary, neck metastasis and distant metastasis were defined according to Mihashi et al. (1976).

Table 4 shows the cause of death of 9 patients. Eight (89 %) died of the tumor present and 1 (11 %) of intercurrent disease. The cause of death was primary lesion in 7 and unknown in 1 cases. Five patients (56 %) died within 1 year and 7 (78 %) within 2 years.

Table 5 presents distribution of the cause of death by site of lesion, T and N categories and stage grouping. No significant relationship between the cause of death and the site of lesion was observed. Death from

TABLE 4
Cause of death by number of years of survival for
9 patients undergoing curative treatment

Cause Years*	Death from tumor				Intercurrent disease	Total
	T	N	M	Unknown		
0-1	3			1	1	5
1-2	2					2
2-3	2					2
Total	7			1	1	9

* Years after the onset of hospitalization.

primary lesion was the most frequent in the cause of death. Therefore, in spite of the advance cases of cervical metastasis, most of the cases died from the primary lesion.

3. Control of primary tumor

Table 6 presents the type of treatment

of the primary tumor by frequency of local recurrence and the cause of death. There were 8 cases of local recurrence. The term local recurrence implies recurrence at the primary site. In all cases, local recurrence took place within 2 years after the onset of treatment. In order to present meaningful data on the rate of local recurrence,

TABLE 5
Cause by death by site, T and N categories and stage grouping

		No. of pt.	Death from tumor				Intercurrent disease	Total
			T	N	M	Unknown		
Site	Postero-superior wall	9	4			1	1	6
	Lateral wall	4	3					3
T	T1	0						0
	T2	5	3					3
	T3	5	3				1	4
	T4	3	1			1		2
N	N0	0						0
	N1	4	1				1	2
	N2	0						0
	N3	9	6			1		7
Stage	I	0						0
	II	0						0
	III	3	1				1	2
	IV	10	6			1		7

TABLE 6
Type of treatment for the primary tumor by frequency of local recurrence and cause of death in 13 curative treatment

Type of treatment	T	No. of pt.*	Local recurrence	Cause of death				
				T	N	M	Unknown	Intercurrent disease
Radiation only	T2	3 (3)	3	3				
	T3	3 (2)	2	2				
	T4	2 (1)	1	1			1	
Radiation and surgery	T2	2 (2)	1					
	T3	2 (1)	1	1				1
	T4	1 (1)	0					

* Number in parentheses indicates number of patients where death occurred within 2 years from cause other than primary tumor and patients who withdrew alive within 2 years are excluded (Three patients in total are thus excluded).

cases dead within 2 years from causes other than local recurrence and surviving cases withdrawn within 2 years should be excluded.

Consequently, in Table 6, the number of patients after these exclusions is indicated in parentheses. As seen from this Table, in radiation only, local recurrence always occurred but in combined therapy, 2 (50 %) of 4 cases had local recurrence. There was no relationship between T category and the rate of recurrence. Seven of the 8 patients who developed local recurrence died from the primary lesion. Only 1 is alive with local recurrence controlled.

4. Control of neck metastasis

As shown in Table 7, there was evidence of cervical lymphnode involvement in all

the 13 patients on the affected side and in 4 of the same patients also on the unaffected side. On the affected side, curative radiation therapy was done in 11 of the 13 cases, radical neck dissection (RND) in 1 and RND with preoperative radiation in 1.

Of the 11 cases treated with radiation on the affected side, the neck node swelling disappeared in 5 cases while it only decreased in size in 6 cases. Of the latter 6, RND was performed in 4 cases immediately following radiation. The remaining 2 refused to undergo RND. On the unaffected side, curative radiation therapy was done in 3 of the 4 patients who had presented evidence of node involvement and RND was done in 1.

In all the 3 patients treated with radiation, the neck mass decreased in size but

TABLE 7

Condition of cervical lymphnode in 13 patients and its treatments

Side	Evidence of node involvement	Primary treatment			
		Radiation	RND	Radiation+RND	None
Affected	Present (N=13)	11	1	1	0
	Absent (N=0)				
Unaffected	Present (N=4)	3	1		
	Absent (N=9)	5			4

TABLE 8

Neck recurrences

Recurrence at cervical lymphnode on affected side

Primary treatment	Recurrence of primary	Rate of cervical recurrence	Final status
Radiation only	Present	1/2	Dead from Primary*
	Absent	1/3	Controlled by RND, alive**

Recurrence at cervical lymphnode on unaffected side

Primary treatment	Recurrence of primary	Rate of cervical recurrence	Final status
Radiation only	Present	1/3	Dead from primary*
	Absent	1/2	Controlled by RND, alive**

* the same patient

** the same patient

not disappeared completely. RND was suggested to them but they refused to undergo surgery.

Table 8 presents frequency of cervical recurrence. In 5 patients whose cervical metastasis disappeared by curative radiation therapy on the affected side, 2 cases developed cervical recurrence. None of patients who had RND as the initial treatment on the affected side developed cervical recurrence. In 5 who had preventive radiation on the unaffected side, 2 cases developed cervical recurrence. In 2 patients who developed cervical recurrence, both developed cervical recurrence simultaneously on both sides. In spite of control of the cervical metastasis by RND, one patient died from the primary lesion, and the other patient is alive at present.

5. Analysis of fatal intercurrent disease

One patient died of an intercurrent disease. He died of appoplexy. The interval from the onset of the treatment to death was 6 months.

6. Analysis of palliative cases

For various reasons, 3 of the 16 patients were treated palliatively. One patients did not have radical treatment because of lung metastasis present at the onset of treatment. He was palliatively treated with radiation and chemotherapy but he died with neck and lung uncontrolled. The other 2

patients refused curative treatment. One of them was T1N1M0 case and had palliative radiation (3000 rad). He is alive 1 year and 8 months after the initiation of the treatment. The other was T3N0M0 case. He did not undergo any treatment. He is still alive for 11 months.

Discussion

The survival rates for epipharynx carcinoma reported in recent literature are presented in Table 9. In most institutes, cancer of the epipharynx has been treated chiefly by radiation therapy and 5-year survival rate is less than 40 %.

The results of the present review are very poor and do not show any improvement in overall survival for 1971-1980 compared to that reported for 1960-1970 (Mihashi et al. 1976). Because the epipharynx is an anatomically blind area and most patients do not have early symptoms, cancer of the epipharynx is frequently found at fairly advanced stages of development. This appears to be one of the primary factors accounting for the poor prognosis. Also, as local recurrence frequently occurs, control of the primary lesion is a major factor in improving the survival rate. Analysis of our data indicated that local recurrence always occurs with radiotherapeutic management alone. All those patients who are

TABLE 9
Survival rate for epipharynx carcinoma reported in recent literature

Authors	Type of primary treatment	No. of pt.	5-year survival
Scanlon et al. (1967)	Radiation only	142	30%
Sato (1970)	Radiation and surgery	22	13.6%
Meyew et al. (1971)	Radiation only	170	38.8%
Bertelsen et al. (1975)	Radiation only	83	23.8%
Larsson and Seeling (1976)	Radiation only	51	37%
Kotaka et al. (1977)	Radiation only	71	37.2%
Watanuki et al. (1979)	Radiation chiefly	21	39.8%

} Direct crude
Actuarial
Direct crude

alive underwent surgical treatments in addition to radiotherapy. Therefore, we can conclude that some combination therapy may prove useful for an improvement in prognosis of epipharynx carcinoma.

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