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Prognosis for recurrence of carcinoma of the esophagus

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ABSTRACT : Surgical outcome for carcinoma of the esophagus is not yet satisfied. The reasons are based on the delay in diagnosis. As a matter of fact a complaint of dysphagia means advanced stage of cancer. In general, such a patient suffers from poor nutritional condition which relates to restriction of oral intake, and this disease frequently affects the aged people. Furthermore, anatomical specificity of the lack of the serosal layer is likely affected by carcinoma outside the wall of the esophagus. And rich lymphatic flow tends to constitute lymphatic metastasis anywhere in the longitudinal direction.

In order to improve surgical results for carcinoma of the esophagus an important access to the treatment is to inhibit the growth of recurrent cancer cells effectively.

In this series, experience with recurrent carcinoma of the esophagus was clinically analyzed to search for a better management.

PATIENTS

Seventeen patients who received the treatment for recurrence after surgical intervention for carcinoma of the esophagus are eligible for this study during the ten years period from January 1978 to December 1987 in the Firtst Department of Surgery, Nagasaki University School of Medicine.

These 17 cases comprise of 16 men and one woman, aged from 38 to 69 years old.

According to the locations of primary lesions. it indicated carcinomas in Ph Ce and Ei are liable to recur more often than those in other sites of the esophagus. However, recurrences were seen in anywhere despite a limited number of patients. Most of recurrent patients contained advanced cancer stages more than stage II. (Table 1)

The depth of cancer infiltration varied from the submucosal layer to outside of the advantitia, most of recurrent patients indicated cancer infiltrations of more than a_1. In nodal involvement, recurrent patients had extensive node metastases of more than n_1. The time

Table 1. Clinical and pathological features

location		stage classification		depth of cancer		node metastasis	
Ph, Ce	6	0	1	sm	2	n0	3
Iu	2	I	0	mp	3	n1	4
Im	3	II	2	al	3	n2	5
Ei	6	III	8	a2	7	n3	3
	17	IV	6	a3	2	n4	2
			17		17		17

duration from the initial operation to appearance of recurrence ranged from one month to 3 years and 9 months, in most cases it was within 6 months of disease-free interval.

The locations of recurrent lesions were local, and the mediastinum including the lung, trachea, pleura in 7, nodal involvement in the neck in 6 and liver metastasis in 3. There were recurrences in the anastomotic sites in 4, leaving a question about the extent of resection. (Table 2)

Table 2. Location of metastasis

neck, supraclavicular nodes	7 cases
local anastomotic	6
mediastinum, tracheobronchus	3
lung, pleura	4
liver	3
rib	2

The treatments for recurrence were listed in Table 3. There are few cases in whom surgery is indicative. In only 2 cases, surgery of neck dissections was applied. The main treatments were composed of administration of anticancer drugs. irradiation and BRM treatment. A few patients received laser therapy, hypertheramia and TAE and lipiodolization for patients with liver metastases. Simultaneous metastases

Table 3. Treatment for recurrence

irradiation	7 cases
neck dissection	2
chemotherpy	9
immunotherapy	5
others	
OK432 intrathoracic	1
MMC lipidolization	1
laser	1

Table 4. Patients with recurrence evaluable for treatment

age	sex	location	disease staging	combined therapy	D.F.I	recurr sites	therapy for recurrence	effect	strvival from recc.	postop. survival
71	M	Im	III a2, n1	Rad. RP	20M	neck node	Rad. 50Cy	(PR)	8M	28M
56	M	Ei	III a1, n2	Rad. PO	13M	liver rib pleura, lung	CDDP PEP 3 courses	(PD)	3M	16M
52	M	PhCe	III a2, n1	Rad. PO CDDP+PEP	1M	anastomosis	hyperthermia	(PD)	4M	5M
70	M	PhCe	III a2, n1	CDDP×PEP	1M	anastomosis	Rad.	(PD)	5M	6M
79	M	Iu	IV a2, n4	(−)	3M	supracl. nodes	Rad. neck dissection laser	(CR)	5M	8M
49	M	ImEi	II a1, n1	Rad. RP FT207 PRK	11M	mediastinum trachea rib	CDDP+PEP	(NC)	5M	16M
54	M	EiIm	IV a2, n4	Rad. RP MMC 30mg PEP 100mg FT207 PSK	11M	lung	CDDP PEP 3 courses OK430	(CR)	17M	28M
50	M	Im	III a2, n2	Rad. PO OK432	10M	r-bronchus neck nodes lung	OK432 FT207 laser	(PD)	7M	17M
56	M	Ei	III mp, n2	CDDP+PEP	12M	liver	CDDP	(PD)	2M	14M
49	M	Ce	0 sm, n0	Rad. PO MMC	45M	neck nodes	Rad. 50Cy PEP OK432	(PR)	9M	54M

into two or three organs occurred in 5 cases who had a relative long period of disease free interval. However, no remarkable effectiveness was observed in most patients with PD in 11 and NC in 1 (Table 4). Although there were significant effects which were regarded as CR in 2 and PR in 3, including the patients who underwent neck dissection and irradiation for cervical node metastasis in 2 and recieved 3 courses of a combination therapy of anticancer drugs, CDDP, PEP OK-432 for bilateral lung metastasis. These facts are suggestive of significant anticancer effects for patients in whom sufficient adjuvant therapy including anticancer drugs might be given. The prognosis for recurrence was pessimistic and all but one case who survived 1 year and 7 months died within 1 year. Eleven died within 6 months and the other 5 survived from 6 months to 1 year, showing PR in 2. However, even in 3 cases who demonstrated PD, they survived more than 6 months. The effectiveness of anticancer drugs was not in proportion to elongation of the survival time.

DISCUSSION

Surgical outcome for carcinoma of the esophagus has been improved and the operative death went down to less than 5 per cent. However, it is no doubt that carcinoma of the esophagus is one of the diseases that shows poor prognosis.

Needless to say, it is necessary that early detection and early treatment are the most important clue to improve surgical outcome. Even in patients with recurrence, aggressive treatment was required for prolongation of the survival time.

Recently potent anticancer drugs such as CDDP, VP-16 and VCR have been widely used and their good effects were expected. Local treatments by the use of laser,[4)5)] hyperthermia[6)] and local irradiation[7)] are recommended for combination therapy.

In fact, recurrence comprises of hematogenous and lymphatic metastases in most patients with recurrence, and the patients with local metastasis alone were quite few. Furthermore, application of surgery for patients with recurrence was limited. In this series, surgery was indicated for only patients with nodal involvement in the neck.

As a matther of fact, when recurrent sign appears clinically, carcinoma used to be extended with a wide spreading in the liver, bone and lung. It is assumed that modes of recurrence may be altered by aggressive curative operation in combination with more extensive bilateral neck dissection, and nodal involvement at recurrence may be depressed. It is generally accepted that carcinoma of the esophagus rapidly extends with multiple distant metastases.[8)] Therefore, it is rare in frequency that surgery is applied in the treatment for patients with recurrence and the surgical outcome is poor.[9)]

It is obvious that the lung and the liver tend to be affected by blood-borne metastasis.[9)] In this study, it was confirmed that bone metastasis also is indispensable lesions that occurred more often.[10)]

Recurrence of carcinoma of the esophagus more frequently involves cervical lymphnodes through lymphatic spreading as well as the lung and liver through blood-borne metastasis. Therefore, it is difficult to manage the patients with recurrence. It is recommended that management at recurrence should be done for multiple lesions, which are composed of nodal involvement and distant metastasis. Combination therapy with potent anticancer drugs such as CDDP, VP-16, ADM and VCR should be prescribed.

In this series, the treatment at recurrence was not effective in elongating the survival time and in improving performance status even if combination of potent anticancer drugs with laser, hyperthermia and TAE had been applied. On the basis of a result of this study, potent adjuvant therpy prior to an apperance of recurrence is required for the improvement of surgical outcome in the treatment of carcinoma of the esophagus.

CONCLUSION

The treatments for patients with recurrence were analyzed in the 17 patients on the basis of a review of our own experience.

1) The locations of recurrence were node involvement in the neck in 7, anastomotic site in 6, mediastinum, trachea and bronchi in 3, the lung and pleura in 4, the liver in 3, the rib in 2 respectively.

2) The disease-free interval ranged from 1 month to 45 months with a mean of 9.7 months. In most of them (82.3%), recurrences took place within 1 year after surgical resections.

3) The treatments for patients with recurrence were not valid because of multiple lesions except for surgery on patients with nodal involvement in the neck.

4) To improve surgical outcome for patients with recurrence, it is recommended that available and effective treatments be continued prior to appearance of recurrence. In addition, it is emphasized that the treatments at recurrence was not so effective , even if they are potent and combined therapy is prescribed.