

Thoracic Surgery Division

Introduction

The Division of Thoracic Surgery has three missions: treatment via surgery, surgical resident training and clinical research.

The Division has three consultant surgeons and usually four residents. Thoracic surgery involves treatment of neoplasms in the thorax, primary and metastatic lung tumors, and mediastinal, pleural, and chest wall tumors. The division specializes in surgical treatment of pulmonary carcinomas. The carcinoma surgical treatment modes include routine limited resection (wedge or segmental resection), simple resection (lobectomy or pneumonectomy) with or without systematic lymph node dissection. Thoracoscopic assistance is used as appropriate. Non-routine surgical treatments are complex approaches such as bronchoplasty, combined resection with adjacent structures, and perioperative adjuvant treatment.

The Division ranks number two for primary lung cancer surgical treatment patients in Japan, to the National Cancer Center Tokyo. Since its establishment in 1992, the Division has been one of the most active leaders in the lung cancer field. The Division of Thoracic Surgery has also been an active participant at scientific conferences. We made 11 regional, 21 national, and 13 international conference presentations this year, in addition to the 16 published papers, 11 in English and 5 in Japanese.

Routine Activities

Our multi-specialty approach is not simply for training of residents. Every Tuesday evening, potential surgical intervention candidates are presented at a multidiscipline team conference where the thoracic surgeons, oncology physicians,

radiologists, and pathologists, including residents, gather for lively discussions. To improve staff members' fluency in English and to more closely involve visiting physicians from other countries, the treatment modality discussions are conducted in English. Every Friday morning, selected patients' records are reviewed from the radiological and cytopathological viewpoints. These reviews are conducted to gain a better understanding of radiologic indications versus pathology findings, to evaluate surgery indications, and learn more about rare histologies.

For non-small cell histology, primary pulmonary carcinomas in clinical stages I/II, and IIIA without bulky mediastinal nodes, and small cell primary pulmonary carcinomas in clinical stage I, surgical resection is indicated as the cure. Optimum treatment modalities are sought via clinical trials aiming to improve the poor prognosis of patients with bulky, or clinically and histologically proven mediastinal lymph node metastases, with disease invading neighboring vital structures, or with small-cell cancers at stage II and later.

Metastatic lung tumor resection is attempted based on modified Thomfold's criteria after consultation with the patient. Histology reveals the majority of these cases to be metastases from colorectal carcinomas.

The majority of mediastinal tumors are thymic epithelial tumors. While some surgeons attempt surgical resection via thoracoscopic procedures, we do not think it is appropriate in these patients.

Our surgical procedures have stayed unchanged for the past several years. Fifteen percent of the surgeries were completed by 3-port access, and 80% were thoracoscopically assisted. Our patients had shorter than average postoperative hospital

stays, with the shortest being four days, and averaging seven for primary lung cancer cases. Only one 30-day operative mortality occurred this year.

Ongoing Clinical Trials

1. Surgical margin lavage cytology examination in limited resection for primary and metastatic lung cancer patients [observational].

2. Limited resection trial for small ground-glass opacity (GGO) lung tumors [phase II].
 3. Phase II trial of combined chemotherapy with cisplatin and irinotecan for large cell neuroendocrine carcinoma.

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Number of surgically treated patients					
	2002	2003	2004	2005	2006
Lung carcinoma	263	291	317	286	314
Metastatic lung tumor	43	31	41	38	52
Mediastinal tumor	14	23	21	19	16
Esophageal carcinoma	37	29	57	64	78
Others	40	58	33	45	37
Total	397	432	469	452	497

Primary lung carcinoma operative method					
	2002	2003	2004	2005	2006
Pneumonectomy	15	12	17	18	8
Lobectomy	203	217	233	221	237
(Bronchoplasty)	(5)	(5)	(6)	(8)	(3)
Limited resection	12	37	36	31	45
Lung resection	230	266	286	270	290

Survival rates for resected primary lung carcinoma		
p-Stage	3-year survival rate (%)	5-year survival rate (%)
I A	94.4	88.4
I B	82.2	68.5
II A	74.4	51.7
II B	63.3	57.0
III A	52.0	38.2
III B	53.3	44.0

[679 words]