

Thoracic Oncology

Introduction

The Division of Thoracic Oncology cares for patients with both primary and metastatic lung cancer, and mediastinal and pleural tumors. To assist our patients through multidisciplinary care, we work closely with co-medicals, thoracic surgeons, radiation oncologists and psychiatrists, all who have special expertise in their respective areas. We also conduct clinical research to understand more about malignant tumors and to develop novel and more effective diagnoses and treatments. The Thoracic Oncology Program has been joined by residents and trainees from domestic and foreign institutions.

Routine Activities

Daily activities

Our Outpatient Clinic is open from Monday to Friday to examine all new patients referred to the Thoracic Oncology Division and to see returning patients. We also examine patients who are candidates for surgical resection. The staff of the Thoracic Oncology Division is responsible for the reading of chest X-rays and chest CTs in the hospital. Bronchoscopy for diagnosis and treatment is done from Monday to Thursday afternoon. Fluoroscopic-CT guided needle lung biopsy and fluoroscopic guided needle biopsy are done on the same day that bronchoscopy is performed. We utilize approximately 90 beds in conjunction with the Thoracic Surgery Division for patient management.

Case conferences with thoracic surgery, medical oncology and nursing staff are scheduled on Tuesday and Wednesday evenings, and Friday afternoons. The staff members and residents join the Journal Club on Wednesday mornings with members of thoracic surgery. In monthly meetings with physicians in private

practices, we present case reports and research results for sub-specialty education.

Research Activities

Our research activities are concentrated in five areas: (1) the detection and diagnosis of peripheral-type minute lung cancers that are not visible on plain chest X-ray; (2) Positron Emission Tomography (PET) trials for diagnosis and staging; (3) the development of novel and effective treatment modalities; (4) basic collaborative study with the Research Institute East, including correlation between gene abnormality and clinical characteristics, study of precancerous lesions, and atypical adenomatous hyperplasia; and (5) the mental status of patients with lung cancer.

New Developments

To establish a standard management of minute pulmonary nodules found by chest CT, a protocol of prospective observational study has been made. PET/CT might prove useful for determining the precise field of radiotherapy in patients with lung cancer combined with atelectasis. We are currently performing pre- and post-treatment PET/CT for patients with limited small-cell lung cancer (SCLC) who have received chemoradiotherapy. These observations might help to define the possible role of surgical resection in limited SCLC. A Phase I/II study of S-1+ cisplatin and concurrent radiotherapy for stage III non-small cell lung cancer (NSCLC) has been initiated. S-1+ cisplatin was also evaluated in patients with stage IV NSCLC. A randomized phase III trial comparing carboplatin + paclitaxel with gemcitabine + vinorelbine followed by docetaxel has been completed, and the results will be presented at ASCO 2006. A Phase I/II study of carboplatin plus

gemcitabine for NSCLC patients with poor performance status is ongoing, and based on a Phase II study of gefitinib for chemotherapy-naive patients with NSCLC, a randomized trial comparing gefitinib with platinum-based chemotherapy as first-line chemotherapy is now being planned. A translational study of epidermal growth factor receptor (EGFR) mutation and gefitinib response has also been initiated. We believe EGRF mutation could be a predictive

factor of gefitinib or erlotinib response.

Finally, we expect a phase III trial comparing etoposide plus cisplatin with irinotecan plus cisplatin following etoposide plus cisplatin and concurrent thoracic radiotherapy for limited SCLC to meet its accrual goal soon.

● K. Kubota ●

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
#patients	303	362	407	382	423	445	525	518	553	580	568
Stage of disease											
IA	57	85	81	83	90	107	140	128	153	147	123
IB	47	48	51	58	60	80	66	67	56	84	89
IIA	4	2	2	3	8	4	1	7	7	9	0
IIB	18	19	32	22	31	18	27	27	34	36	29
IIIA	38	39	28	21	29	39	41	50	46	35	52
IIIB	46	73	78	64	63	77	113	105	89	107	119
IV	93	96	135	131	142	120	137	134	168	162	156
Histology											
Adenocarcinoma	172	218	241	230	274	270	307	283	329	352	328
Squamous cell ca.	75	87	93	95	86	96	118	116	121	117	111
Small cell ca.	39	36	50	46	37	42	58	68	48	58	58
Large cell ca.	2	1	6	1	6	10	6	12	11	15	12
NSCLC	5	10	12	2	11	20	27	31	32	30	48
Others	10	10	5	8	9	7	9	8	12	8	11
Treatment											
Chemo → surgery	2	7	2	1	1	2	4	7	6	2	4
Surgery	134	147	159	164	184	197	226	223	240	265	230
Chemotherapy (CT)	89	111	120	126	136	135	184	202	208	214	218
CT+RT	21	16	31	23	29	50	68	58	67	66	72
Surgery → chemo	1	0	1	0	0	0	0	0	1	3	16
Radiotherapy (RT)	25	29	27	18	24	27	18	13	10	8	12
Laser therapy	0	3	1	0	1	1	2	0	2	3	1
Palliative care	31	49	66	50	48	33	23	15	19	19	15