Thoracic Oncology

Introduction

The Division of Thoracic Oncology cares for patients with lung cancer both primary and metastatic, mediastinal tumors and pleural tumors. To help our patients in the multidisciplinary care, we work closely with comedicals, thoracic surgeons, radiation oncologists and psychiatrists who have special expertise in these areas. We also conduct clinical research to understand more about these malignant tumors and to develop new and more effective diagnoses and treatments. Residents and trainees from domestic and foreign institutions have joined the Thoracic Oncology Program.

Routine Activities

Daily activities

An Outpatient Clinic conducted by staff members 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 the patients who are candidate of surgical resection. The staff of the Thoracic Oncology Division are 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 as bronchoscopy is performed. We use 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 evenings, Wednesday evenings and Friday afternoons, respectively. The staff members and residents join the journal club on Wednesday mornings with members of thoracic surgery. In monthly meeting with physicians in private practices, we present case reports and research results for subspecialty education.

Research Activities

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

New Developments

A pilot study of PET/CT for lung cancer demonstrated more accurate localization of tumor and metastatic lymphnodes than PET alone. PET/CT will be a useful method for diagnosis and staging of lung cancer. The results of four-arm trial comparing cisplatin plus irinotecan with cisplatin plus gemcitabine, cisplatin plus vinorelbine and carboplatin plus paclitaxel for advanced non-small-cell lung cancer were presented at 2004 ASCO. Although experimental regimens could not be demonstrated non-inferiority to control regimen, cisplatin plus irinotecan, there were no statistically significant differences of survival between the control arm and the experimental arms. Quality-of life analysis revealed that experimental arms had more favorable physical domain than the control arm. The trial confirmed efficacy and toxicity of standard chemotherapy regimens for disseminated non-small cell lung cancer (NSCLC). Based on the pilot study of cisplatin and etoposide plus concurrent thoracic radiotherapy followed by cisplatin and irinotecan for limited small-cell lung cancer (LD-SCLC), a phase III trial to evaluate the efficacy of irinotecan and cisplatin in LD-SCLC is currently underway. A phase II study of gefitinib for chemotherapy-naive patients with NSCLC demonstrated similar activity to patients who had previously received chemotherapy. Interstitial pneumonitis is also problematic even in chemotherapy-naive patients. A randomized trial comparing oral antibiotics for low-risk febrile neutropenic patients to intravenous antibiotics demonstrated similar efficacy of the two treatments. Outpatient chemotherapy could be safely conducted with oral antibiotics even when patients have neutropenic fever. Because droperidol failed to demonstrate efficacy in the prevention of cisplatin-induced delayed emesis in our placebo-controlled trial, a study of new ant-emetic agent, palonosetron, will be started soon.

● K. Kubota ●

Year	1993-1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
#patients	288	363	402	385	424	445	530	522	559	590
Stage of disease										
I	91	139	128	141	155	189	209	199	214	240
II	14	8	21	18	40	21	30	35	44	45
IIIA	47	49	46	30	28	39	44	53	47	38
IIIB	48	72	69	64	61	78	109	102	86	109
IV	89	95	138	132	140	118	138	133	168	158
Histology										
Adenocarcinoma	167	220	238	228	268	263	306	283	326	361
Squamous cell ca.	67	88	90	90	83	95	116	117	124	120
Small cell ca.	37	35	50	48	36	41	58	68	49	59
Large cell ca.	12	13	21	9	29	41	42	47	50	43
Others	5	7	3	10	8	5	8	7	10	7
Treatment										
Chemo+surgery	6	8	3	0	1	0	2	5	5	0
Surgery	117	150	162	168	186	199	232	227	245	277
Chemotherapy (CT)	112	124	145	145	137	138	192	211	215	219
CT+RT						49	62	51	63	66
Radiotherapy (RT)	16	29	23	19	25	27	18	13	10	7
Laser therapy	1	4	1	0	1	1	2	1	3	3
Palliative care	36	48	68	53	45	31	22	14	18	18