cancers showed no vessel invasion or positive cytology results. There was no correlation between tumor size, TDR, and subtype. No mortality or recurrence has occurred, but one patient developed postoperative pneumothorax.

**P3-277**  
Induction chemoradiotherapy for pancoast tumors with N2 disease  
Zengerink, Hans1 Mollema, Robert2 Oosterhuis, Wolter1 Paul, Rick2  
1 VU Medical Centre Amsterdam, The Hague, The Netherlands 2 VU Medical Centre Amsterdam, Amsterdam, The Netherlands

**Introduction:** Pancoast tumors are seen as a subgroup of lung cancer that behave differently from most other non small cell lungcancers. These tumors tend to behave more aggressively locally and metastasize more rapidly. Therefore their treatment should also be more aggressive. Our center’s experience with Pancoast tumors will be discussed and compared with current literature to assess the effects of induction chemoradiotherapy on the outcome. Based on these results a proposal for treatment will be advocated.

**Methods:** We retrospectively analyzed the records of all patients with Pancoast tumors treated with a multimodality approach at our institution from July 2001 through January 2007 and compared them with recent literature.

**Results:** Twenty-six patients were in the study cohort. Because two patients failed to receive both chemotherapy and radiotherapy, we eventually included 24 patients (7 women, 17 men). The mean age was 60 years (range, 40-78 years).

There were 18 patients with T3 tumors. 7 patients were proven N2 positive after a positive PET scan and following mediastinoscopy. The chemotherapy regimens consisted of gemcitabine+carboplatin or etoposide+carboplatin. Chemotherapy was concurrently or sequentially given with external beam radiotherapy delivered in daily fractions for a total dose of 46 Gy in most patients. 7 patients with N2 disease underwent re-mediastinoscopy after completed induction therapy, with all proven negative N2 lymph nodes. Postoperative complications occurred in 8 patients (36 without any postoperative mortality. Although in 8 patients (36%) there was still visible tumor in the pathologic specimen, we achieved complete resection in all patients but 1. There were no positive N2 nodes in the definitive pathologic specimen. In 2 patients with N2 positive nodes before induction therapy, there were postoperative positive N1 nodes in the specimen. Mean length of follow-up was 19 months (2-58). 6 patients died, 2 patients because of locoregional recurrence, 3 patients due to metastasis and 1 patient died of cardiac cause. 4/12 patients with a follow-up of more than 2 years died as a result of recurrent malignancy.

**Conclusions:** Preoperative Chemo-Radiotherapy results in a high percentage of radical resections. Postoperative complications are more frequent. The subgroup of patients with a >2 year follow up show high survival rates of 66% especially when compared to patients in literature that have been treated with surgery alone. The overall results are comparable to results reported in literature. Tumor positive mediastinal lymph nodes before treatment should not necessarily exclude patients from trimodality treatment. The improved survival rates compared to surgery alone make this treatment the treatment of choice. Therefore we advocate that in this group of patients early multidisciplinary staging and organization of treatment is mandatory.

**P3-278**  
Effect of neoadjuvant chemotherapy in surgery and around surgery of patients  
Zhang, Yi  
Beijing Lung Cancer Centre CMU, Beijing, China

**Background:** The aim of this study was to assess feasibility and efficacy of neoadjuvant chemotherapy with NVB and carboplatin followed surgery for patients with stage III NSCLC.

**Methods:** We report 27 consecutive patients with all staged III NSCLC receiving neoadjuvant therapy, mean age was 62.1 years. Cell type was squamous 17 cases, adenosquamous 7 cases, adenosquamous 3 cases. Operations included pneumonectomy(10), pneumonectomy plus carino-resection(1), bilobectomy(2), lobectomy(10), lobectomy plus lung artery plastics(1), exploration(3). Chemotherapy was NP or NC for 1-2 cycle before surgery. All patients were gived 4-6 cycles chemotherapy after operation.

**Results:** In this group, CR 1, PR 12, SD 13, PD 1. The rate of resection was 88.9%. 3 cases of exploration due to tumor invasive heart, cava venous. No surgical complication and mortality rate. Bleeding during operation was 150-4500ml.

**Conclusion:** Destination of neoadjuvant chemotherapy is down-stage, improving complete resection rate, killing micro-tumor of body, avoiding relapse and distant metastasis, prolong survival and improving life quality of patients. Therefore, from our group and foreign papers, neoadjuvant chemotherapy is safe, effective, not increasing surgical mortality and complication after operation.

**P3-279**  
Atrial resection in advanced lung cancer  
Zharkov, Vladimir V.; Kurchin, Viachaslau P.; Podobed, Alexander V.  
Research Institute of Oncology & Medical Radiology, Minsk, Belarus

**Purpose:** To assess the results of the surgical treatment of patients with non-small cell lung cancer (NSCLC) invading the pulmonary vessels or atrium.

**Methods:** From November 1986 to December 2006, 49 patients underwent fimbriated pneumonectomy with partial resection of the left atrium for lung cancer, without (n=41) and with cardiopulmonary bypass and reconstruction bovine pericardium graft (n=8).

**Results:** Of the 49 patients (median age of 58.6 years, range 41 to 75 years), 47 were men (96%) and 2 were women. Pathologic analysis of the specimens identified 26 patients (53%) with N2 disease, 22 patients (45%) with N1 disease, and 1 patient with N0 disease. The T status was pT4 in 35 patients, pT3 in 14 patients. The myocard in border of resection was detected by microscopy. Histology was squamous cell carcinoma in 37 patients, adenocarcinoma in 4, large cell carcinoma in 2, mucopidermoid carcinoma in 1 and adeno cystic carcinoma in 1. 8 patients received a preoperative chemotherapy (n = 2) or radiotherapy (n = 6). 31 patients (63,2%) underwent right pneumonectomy. Only left atrium was resected in 34 patients, two organs in 10 patients, and three organs in 5 patient. The superior vena cava was resected in 2 patients, muscular coat of esophagus in 3, the adventitia of the aorta in 3, the trachea in 9, diaphragma in 1 and the pulmonary artery in 2. The operative mortality rate was 6,6% (n = 3). Non-fatal major complications occurred in 6 patients (12,2%). The survival rate, calculated with the Kaplan-Meier method, was estimated as 61% at 1 year, 36 % at 3 years and 24% at 5 years (median 15 months), including the operative

**P3-280**  
Radiotherapy for non-small cell lung cancer patients treated in the Caucasian area: A retrospective analysis  
Tuminin, Kirill; Kurchin, Viachaslau P.; Podobed, Alexander V.  
Research Institute of Oncology & Medical Radiology, Minsk, Belarus

**Purpose:** To retrospectively analyze the records of all patients with non-small cell lung cancer (NSCLC) invading the pulmonary vessels or atrium.

**Results:** Between January 1986 and 1998, 49 patients receiving neoadjuvant therapy. Mean age was 62.1 years. Cell type was squamous 17 cases, adenocarcinoma 7 cases, adenosquamous 3 cases. Operations included pneumonectomy(10), pneumonectomy plus carino-resection(1), bilobectomy(2), lobectomy(10), lobectomy plus lung artery plastics(1), exploration(3). Chemotherapy was NP or NC for 1-2 cycle before surgery. All patients were gived 4-6 cycles chemotherapy after operation.
mortality. The five-year survival rate of patients with N2 disease (n=26) was 13% and those with N0-1 (n=23) was 29% (p > 0.05).

**Conclusions:** Radical resection of lung cancer with left atrial is feasible, and it could lead to permanent cure in carefully selected patients.

**P3-280** NSCLC: Surgery Posters, Wed, Sept 5 – Thu, Sept 6

**Analysis about clinicopathologic characteristics of lung adenosquamous carcinoma**

Zhouyuan, Zhouyuan¹ Wangdong, Wangdong²

¹ Department of Cardiothoracic Surgery, The 81st Hospital of PLA, Nanjing, China ² The 81st Hospital of PLA, Nanjing, China

**Objective:** In order to improve the efficacy of treatment of lung adenosquamous carcinoma, we retrospectively reviewed the clinicopathologic characteristics of 63 cases who were surgically treated in our hospital.

**Methods:** From Jan. 1994 to Dec. 2004, 63 patients of primary lung adenosquamous carcinoma were treated surgically. Their clinical and pathological records were reviewed.

**Results:** Lung adenosquamous carcinoma comprised 11.5% of total patients surgically treated for the primary lung cancer during the same period. 12 cases (19.0%) were diagnosed before operation. 49 cases (77.8%) had lymph nodes metastasis (LNM). The degree of LNM was 43.9%.

**Conclusions:** Lung adenosquamous carcinoma is a more virulent tumor, which exhibited highly aggressive biological behavior and higher rate of lymph node metastasis. Its prognosis is worse than other NSCLC. To obtain a better effect, multi-modality therapy should be used with surgical treatment.

---

**Pathology**

**P1-158** Pathology Posters, Mon, Sept 3

**Thoracocardiovascular surgery and pathology of 255 patients with cardiac tumors: 30 years of experience in the Philippine Heart Center**

Asuncion, Bernadette R.¹ Lasaca, Rico P.¹ Templo, Felipe S.²

¹ Philippine Society of Pathologists, Quezon City, Philippines ² Philippine Heart Center, Quezon City, Philippines

**Background:** Diseases of the Heart, Vascular, Respiratory System and malignant neoplasm remains to be the leading cause of mortality in the Philippines. Thoracic surgeons and Pathologists are often faced with diagnostic and therapeutic dilemmas when presented with cardiac tumors. Most often physicians are caught unaware and the decision to undergo surgery is almost always necessary before the patient deteriorates.

**Methods:** To describe the incidence primary cardiac tumors from 1976 to 2006 at the Philippine Heart Center based on age, gender and manner of presentation, frequency, localization, implantation site, associated findings and histopathologic diagnosis and to review cardiac tumor registry, patient records and glass slides. On selected cases, additional immunohistochemical studies were done from paraffin block tissues. We used descriptive statistics, and quantitative variables are expressed as mean, range and standard deviation whereas qualitative variables are expressed as proportions.

**Results:** 255 patients underwent thoracocardiovascular surgery (median sternotomy with cardiopulmonary bypass) with primary cardiac tumors established clinically and echocardiographically with histopathologic correlation. All cases were derived from autopsy material and / or surgically resected specimen. Primary cardiac tumors were benign in 91.8% and malignant in 8.2%. Of the total 255 cases, 89% were adults, and 11% were pediatric cases. Generally the most common tumor is myxoma, (86%) followed by metastatic tumors (1.6%). Main affected gender was females in 60% of cases. Average age ranges from 29 days to 82 years with a mean age of 41 years. The most common initial presentation was dyspnea and chest pain. Most patients were in sinus rhythm, and the best diagnostic tool was 2D echocardiography. In adults, myxomas were the most common tumor whereas rhabdomyoma occurred most frequently in the pediatric age group. Myxomas were mostly located in the left atrial septum, and in decreasing frequencies, the left atrial free wall, right atrial free wall, right ventricle and biatrial and more were pedunculated and attached to the interventricular septum. Tumor size ranged from 2.5 to 12.5 cms in greatest diameter. Metastatic tumors were from the lungs and kidney, which may also affect the heart by tumor progression via the inferior vena caval vein. Sarcomas were most common malignant tumor in adults. Rhabdomyosarcoma, angiosarcoma, myxosarcoma, leiomyosarcoma and malignant fibrous histiocytomas were reported.

**Conclusion:** The series of neoplasm presented varies in clinical presentation and is specific for every tumor. Its symptoms depend on the location of tumor, its extent and severity. Although most cardiac tumors are benign, they can be lethal despite their histology. The advent of cardiac imaging, and cardiac surgery, modern immunohistochemical studies have aided in the prompt diagnosis of cardiac tumors. Since cardiovascular disease and cancer are both common, precise knowledge is necessary. Cardiac tumors are unique and rare that requires the physician’s high degree of suspicion.

**P1-159** Pathology Posters, Mon, Sept 3

**Pathology of rare benign vascular tumors of the thorax**

Asuncion, Bernadette R.¹ Gadingan, Donaldson M.² Padua, Roberto D.²

¹ Philippine Society of Pathologists, Quezon City, Philippines ² Philippine Heart Center, Quezon City, Philippines

**Background:** Vascular lesions of the thorax are extremely rare. Few literatures can be obtained and its origin is still a major field of research. The occurrence of thoracic vascular lesions triggers speculations that these lesions, if left untreated, may further enlarge and rupture.

**Methods:** To present a series of diagnosed cases of vascular lesions of the thorax, seen in the Philippine Heart Center in the last 10 years, such as

(1) **Cardiac Hemangioma Obstructing The Right Ventricular Outflow Tract:** A rare case of a 35-year-old female who presented with easy fatigability and exertional dyspnea. Imaging studies revealed a cardiac mass obstructing the right ventricular outflow tract. The diagnosis of vascular malformation consistent with cardiac hemangiomia was confirmed on histopathologic examination. The postoperative course was uneventful.