



NSCLC: Surgery Posters, Wed, Sept 5 – Thur, Sept 6

## Survival in lung cancer patients with pathologic fracture

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**Background:** About 30-40% of all lung cancer patients will develop bone metastases during the course of their disease and skeletal related events like pain, pathologic fractures and paraparesis are common. These complications often occur during the last months of life; however, some patients will live for years. The aim of the study was to identify factors associated with survival.

**Material and Methods:** This retrospective study was based on a consecutive series of 100 patients with lung cancer treated surgically for metastatic lesions of long bones or due to vertebral fracture and paraparesis from 1986 through 2006. There were 45 men and 55 women with a median age of 60 and 63 years respectively. 68 patients were surgically treated for a long bone fracture and 32 patients due to paraparesis. Of the patients operated for a long bone fracture, 73 had a complete fracture whereas 33 were treated for an impending fracture. Adenocarcinoma was diagnosed in 60 patients, squamous cell carcinoma in 15, low differentiated non-small cell cancer in 11, SCLC in large cell carcinoma in 8, bronchoalveolar carcinoma 1 and large cell carcinoma in 5. 89% of male patients and 86% of the females were smokers or former smokers.

**Results:** The Kaplan-Meier survival rate for the series of 100 patients was 0.19 at 1 year after surgery, 0.07 at 2 years and 0.04 after 3 years. The median survival was 319 days for patients with adenocarcinoma, 253 days for patients with SCLC and 244 days for squamous cell carcinoma (p<0.014). 33% of the patients had skeletal metastasis as the first sign of disease. Their survival was significantly shorter than patients with bone metastasis diagnosed as a secondary event, 94 vs 319 days (P<0.049). Patients treated for a long bone fracture had a significantly longer survival than patients operated due to paraparesis 316 vs 207 days (p<0.038). There was a tendency to shorter survival in patients with complete as opposed to impending fractures (p<0.07).

**Conclusion:** The one year survival rate 0.19 implicates that palliative surgery is justified in patients with skeletal metastasis of lung cancer. However, patients with skeletal metastasis as the first sign of disease and patients surgically treated for paraparesis were associated with poor prognosis.

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The clinical experiences of double sleeve lobectomy of the bronchus and the pulmonary artery

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**Objective:** Investigate the methods and the results of double sleeve lobectomy of the bronchus and the pulmonary artery in surgical treatment for the central lung cancer.

**Methods:** From March 1995 to March 2006, double sleeve resection and reconstruction of bronchus and pulmonary artery was performed in 12 cases with central lung cancer. Among them, double sleeve left upper lobectomy in 10 cases, double sleeve right upper-middle lobectomy in 2 cases.

**Results:** Occurring irregular heartbeat after operation in 2 cases, the obstruction pneumonia and pulmonary atelectasis in 1 case. The squamous cell carcinoma in 9 cases, adenocarcinoma in 2 cases, SCLC in 1 case. No surgical operation death. The 1,3 and 5 year survival rate was 81.9% (9/11), 100%(7/7) and 100%(5/5) respectively.

**Conclusion:** The double sleeve lobectomy of bronchus and pulmonary artery maximally reserving the healthy lung and maximally cutting off the tumor at the same time, avoiding pneumonectomy. The postoperative living quality of patients is well.

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# Tumor size and 5-year survival rate in surgically treated patients with pN0M0 NSCLC

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**Background:** In present TNM system the border line between T1 and T2 is 3cm of diameter in tumor size. We tried to estimate the influence of tumor size on the 5-year survival rate in MSCLC patients operated on with pN0M0.

**Method:** We have analyzed retrospectively the group of 328 patients with pN0 NSCLC operated on in our institution between year 1998 and 2000. The time of follow-up was 5 to 8 years.

We divided our pts into 7 groups considering the tumor size criteria (<1cm, 1-2cm, 2-3cm, 3-5cm, 5-7cm, 7- 0cm, > 10cm).

**Results:** The histology of resected tumors was adenocarcinoma in 108 (38%), squamous in 154 (47%), NSCLC in 10 (3.1%), large cell In 9 (2.7%), carcinoid in 22 (6.7%), other in 8 (2.4%). The type of resection included pneumonectomy in 56 pts, lobectomy in 263 pts and wedge resection/segmentectomy in 8 pts.

The number of pts incorporated in tumor size group was 10, 50 76, 100, 47 26 and 9 pts in 1cm group, 1-2cm group, 2-3cm group, 3-5cm group, 5-7cm group, 7-10cm and > 10cm group respectively. The 5- year survival rates were 80%, 78%, 79%, 57%, 59%, 44% and 33.3% respectively.

**Conclusions:** We have found no statistically significant deference between first three groups of patients. Therefore we concluded that the 5cm border line in tumor size might be prognostic in terms of 5-year survival rate in NSCLC patients undergoing radical resection of lung tissue.