Value (SUV) was measured. The maximum SUV were compared with each histologic subtype and stage.

**Results:** All 35 lesions showed various levels of increased FDG uptake. Table shows the relationship between histologic subtype and maximum SUV. With regard to stage, 10 patients were in stage I, 8 were in stage II, 5 were in stage III, and 2 were in stage IVa. The maximum SUV were 4.0 ± 1.08 (range, 2.6-5.2) for stage I, 5.1 ± 2.07 (range, 3.8-9.9) for stage II, 5.9 ± 2.57 (range, 3.5-8.9) for stage III, and 3.8 ± 1.27 (range, 2.9-4.7) for stage IVa. The differences in the maximum SUV between five histologic subtypes were statistically significant (p<0.000). On the other hand, no significant differences were found between each stage.

**Conclusions:** Our results suggest that FDG-PET is useful for predicting the histologic subtype in thymic epithelial tumors. Further studies are needed to evaluate other clinical usefulness of FDG-PET for thymic epithelial tumors.

<table>
<thead>
<tr>
<th>Histologic subtype</th>
<th>No. of Patients</th>
<th>Mean ± SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
<td>3.3 ± 0.75</td>
<td>2.6-4.3</td>
</tr>
<tr>
<td>AB</td>
<td>8</td>
<td>3.9 ± 0.81</td>
<td>3.0-5.2</td>
</tr>
<tr>
<td>B1</td>
<td>4</td>
<td>4.7 ± 0.82</td>
<td>4.0-5.7</td>
</tr>
<tr>
<td>B2</td>
<td>3</td>
<td>5.1 ± 0.43</td>
<td>4.7-5.1</td>
</tr>
<tr>
<td>B3</td>
<td>2</td>
<td>9.1 ± 1.07</td>
<td>8.4-9.9</td>
</tr>
<tr>
<td>C</td>
<td>10</td>
<td>12.6 ± 4.43</td>
<td>5.8-19.9</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>7.21 ± 4.72</td>
<td>2.6-19.9</td>
</tr>
</tbody>
</table>

PD6-2-6     **Mesothelioma and Other Thoracic Malignancy, Mon, 16:00 - 17:30**

**Predictors of early mortality and morbidity following surgical palliation of malignant pleural effusion**

Pilling, John; Dusmet, Michael; Ladas, George; Goldstraw, Peter

**Royal Brompton Hospital, London, UK**

**Background:** There is little evidence to identify which patients being considered for surgical palliation of malignant pleural effusion (MPE) are at high risk of death or serious complications. We evaluated our experience to identify prognostic factors.

**Methods:** We reviewed 304 consecutive patients (188 female, median age 60 years [range 26-90]) who underwent 337 procedures for palliation of MPE over a 72 month period. Procedures performed included thoracoscopic talc pleurodesis 214, pleuroperitoneal shunt insertion 41, intercostal drainage and pleurodesis under local anaesthetic 40, pleural biopsy alone 30 and long term pleural drainage 10. The commonest malignancies were breast (32%), mesothelioma (24%), lung (15%) and ovary (9%).

**Results:** Hospital mortality was 4.3%; complication rate 17% and 30 day mortality 11.2%. Hypoalbuminaemia (p=0.003) and raised alanine transaminase (ALT) (p=0.004) were associated with increased hospital mortality on univariate analysis. On multivariate analysis hypoalbuminaemia maintained significance (p=0.04). Post operative complications were associated with a preoperative diagnosis of malignancy (p=0.03) on univariate analysis. No factor maintained significance on multivariate analysis. Thirty day mortality was associated with preoperative diagnosis of malignancy (p=0.028), short duration of symptoms (p=0.042), hypoxaemia (p=0.006), leucocytosis (p=0.001), hypoalbuminaemia (p<0.001), raised ALT (p<0.001) and poor performance status (p=0.014) on univariate analysis. Leucocytosis (p=0.014), hypoalbuminaemia (p=0.001) and raised ALT (p=0.032) maintained significance on multivariate analysis.

<table>
<thead>
<tr>
<th>Hospital Mortality</th>
<th>30-day Mortality</th>
<th>Complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCC &gt;12</td>
<td>4 of 55 (7.3%)</td>
<td>15 of 52 (29%)</td>
</tr>
<tr>
<td>&lt;12</td>
<td>11 of 277 (3.9%)</td>
<td>23 of 246 (9.3%)</td>
</tr>
<tr>
<td>Albumin &lt;35</td>
<td>15 of 222 (6.8%)</td>
<td>37 of 197 (19%)</td>
</tr>
<tr>
<td>&gt;35</td>
<td>0 of 109 (0%)</td>
<td>1 of 102 (0.99%)</td>
</tr>
<tr>
<td>ALT &lt;41</td>
<td>8 of 269 (2.9%)</td>
<td>23 of 241 (9.5%)</td>
</tr>
<tr>
<td>&gt;41</td>
<td>7 of 51 (14%)</td>
<td>15 of 48 (31%)</td>
</tr>
</tbody>
</table>

**Conclusions:** Hypoalbuminaemia is a marker of generalized physiological impairment; it is associated with increased mortality both in hospital and at 30 days. Its presence should influence risk assessment, treatment decisions and discussions with the patient.

PD6-2-7     **Mesothelioma and Other Thoracic Malignancy, Mon, 16:00 - 17:30**

A single institutional experience of thymic epithelial tumors over 11 years: clinical features and outcome and implications for future management

Kim, Seung Tai; Lee, Hee-Sung; Ahn, Jin Seok; Lee, Jeeyun; Ahn, Yong-Chan; Ahn, Myung-Ju; Kim, Kwannmien; Shim, Young Mog; Kim, Jhungook; Park, Keunchil

**Samsung Medical Center, Seoul, Korea**

**Background:** Thymic epithelial tumors (TETs), the most common tumor of the anterior mediastinum, are epithelial neoplasms of the thymus with a wide spectrum of morphologic features.

**Methods:** We retrospectively analyzed clinical features of TET and the correlation of WHO histologic classification and Masaoka staging system with different treatment modalities in 195 patients, from 1995 to 2005.

**Results:** According to the Masaoka’s staging system, there were 78 (40.0 %) patients with stage I, 38 (19.5 %) with stage II, 41 (21.0 %) with stage III, 38 (19.5 %) with stage IV. All patients were re-classified according to the WHO criteria as follows: Type A (n=9, 4.6 %), AB (n=37, 18.9 %), B1 (n=29, 14.8 %), B2 (n=48, 24.6 %), B3 (n=40, 20.5 %), C (n=32, 16.4 %). There was a fairly good correlation between Masaoka staging and WHO histotype (P<0.05). However, in multivariate analysis, the tumor stage and WHO histotype were two independent factors separately for predicting overall survival (P<0.001, P<0.001, respectively). Thus, both Masaoka stage and WHO histotype should be considered in risk stratification of therapy for TET patients. Patients with completely resected type B2, B3 and C and adjuvant radiotherapy (n=57) had more favorable disease-free and overall survival as compared with those without adjuvant treatment (n=20) (P=0.015, 0.015, respectively). Given that the predominant sites of recurrence after surgery was pleura/pericardium and lung, and the fact that complete resection was a significant influential factor for survival at log-rank test, an active investigation of newer treatment strategies such as neoadjuvant treatment to improve the resectability and development of optimal adjuvant treatment modality is a high priority especially for those with high-risk for recurrence or in patients with advanced stage disease.

**Conclusions:** Though there was a clear association between the two systems the Masaoka stage and WHO histotype were two independent prognostic factors for survival. Despite of some discordance between
the two systems, the two parameters, therefore, should both be considered during decision-making for therapeutic approaches.

PD6-2-8 Mesothelioma and Other Thoracic Malignancy, Mon, 16:00 - 17:30

High-resolution ROMA analysis of chromosomal rearrangements in mesothelioma patients with poor and good survival
Ivanov, Sergey V.1 Ivanova, Alla V.1 Lucito, Robert2 Pass, Harvey J.13
1 NYU School of Medicine, New York, NY, USA 2 Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, USA 3 NCI Cancer Center, New York, NY, USA

Background: Representational oligonucleotide microarray analysis (ROMA) is a recently developed microarray-based high-resolution technology that helps linking chromosomal losses and gains with specific genetic events. ROMA identifies the boundaries of deletions, duplications, and amplifications with the accuracy of roughly 50-100 kb throughout the whole human genome. Mesothelioma is an aggressive asbestos-related cancer with short (median 11-22 months) survival and poorly investigated genetic components.

Methods: We performed ROMA on DNAs isolated from mesothelioma patients to assess the possible link between chromosome rearrangements and prognosis and to identify the critical chromosomal events involved in the disease progression. Analysis of the signal intensity data obtained with microarray that contained more than 40,000 features was performed using CGH-Explorer software.

Results: A remarkably high rate of losses and gains on the sub-chromosomal level was reported in the patients with poor survival. The most frequent events in the long survivors were losses of chromosomes 1, 4p, 6q, 9, 10, 14-22 and gains of chromosomes 12 and 13. The comparison between two groups of patients helped to identify “early” chromosomal events and genes that may play critical roles in mesothelioma progression.

PD6-3-1 Supportive Care & QOL, Mon, 16:00 - 17:30

Health related quality of life, mood disorders and coping abilities in an unselected sample of patients with primary lung cancer
Rolke, Heidi B.1 Bakke, Per S.2 Gallefoss, Frode1
1 Dept. of Pulmonology, Sorlandet Hospital, Kristiansand S, Norway 2 Dept. of Medicine, University of Bergen, Bergen, Norway

Background: Health related quality of life (HRQoL) and mood disorders have previously been evaluated only in selected patients with primary lung cancer, for example alongside chemotherapy studies or after lung surgery. The aims of this study were therefore to assess HRQoL and mood disorders, as well as coping abilities, in an unselected sample of patients with primary lung cancer, and test the associations between them and performance status (Eastern Cooperative Oncology Group, ECOG).

Methods: A questionnaire-based prospective study of all patients diagnosed with primary lung cancer in Southern Norway from June 14th, 2002 to June 13th, 2005. HRQoL was assessed according to European Organization for Research and Treatment of Cancer (EORTC) Quality of Life Questionnaires (QLQ C30 and LC13 (the lung specific module); for both, a high symptom or function score indicates a low or high HRQoL, respectively), anxiety and depression according to Hospital Anxiety and Depression scale (HAD) and coping ability according to Sense of Coherence 13 (SoC) (13 indicating lowest coping ability and 91 the highest).

Results: According to EORTC the function scores for global QoL, role and cognitive varied between 49,4 (mean, SDplusmn26), 41,1 (38) and 77,3 (27). Correspondingly, symptom scores ranged from 52,7 (31) for fatigue, dyspnoea 52,3 (34) to haemoptysis 6,7 (18). There were no differences between NSCLC and SCLC except for fatigue and sore mouth, being more pronounced in SCLC 60,6, (31) than in NSCLC 50,7 (35) and 7,6 (21) versus 15,6 (31), respectively (p’s<0,05). These scores are poorer than recorded in EORTC databases from chemotherapy and radiotherapy studies.

According to HAD, 17% of patients scored compatible with anxiety and 14% with depression. Seven percent scored consistent with combined anxiety and depression. Mean SoC score was 58,3 (SD 7). A HAD-score compatible with anxiety or depression was associated with significantly poorer HRQoL scores. The Odds Ratio for depression was 4 in cases of poor performance status (ECOG) 3-4 compared to ECOG 0-2. A reduced coping ability was associated with anxiety (p=0,025, 95%CI 0,39 - 5,70) and depression (p=0,035, 95%CI 0,24 - 6,60).

Conclusion: In this survey on unselected patients with newly diagnosed lung cancer, mean HRQoL scores were poorer than reference values from previous, treatment-based studies. Patients with HAD scores compatible with depression and/or anxiety, percept more symptoms and report reduced quality of life at the time of diagnosis compared with patients without mood-related disorders. Anxiety and depression are also associated with lower coping abilities.

PD6-3-2 Supportive Care & QOL, Mon, 16:00 - 17:30

Research priorities in non-small-cell lung cancer (NSCLC): recommendations of the Scientific Leadership Council (SLC) in Lung Cancer of the Coalition of Cancer Cooperative Groups (CCCG)
Schiller, Joan H.
UT Southwestern Medical Center, Dallas, TX, USA

Background: While many potentially revolutionary therapies are being developed for NSCLC, the leading cause of cancer-related death in the US, advances are being made in screening and staging technology. Focused, consensus-based recommendations of research priorities, em-