80 mg/m². Following chemotherapy, the patient was evaluated with a TCT which showed that her underskin mass had been disappeared, her mediastinal lymph nodes and pleural nodules had been regressed over 50%; also her complaints ended after chemotherapy. As it is known, in the treatment of malignant mesothelioma, except the surgery in early stage patients, the studies about the chemotherapy are not so hopeful. This case is presented to show that pemetrexed (Alimta) can be an effective chemotherapy agent in mesothelioma treatment.

Background: Malignant mesothelioma is an extraordinarily challenging disease to treat; however, locoregional virotherapy may be applicable for this aggressive disease because of the accessibility by intrapleural and/or intratumoral virus delivery. We previously reported that an attenuated adenovirus OBP-301 (Telomelysin), in which the human telomerase reverse transcriptase (hTERT) promoter element drives expression of E1A and E1B genes linked with an internal ribosome entry site, could replicate in and causes selective lysis of human cancer cells. In the present study, we examined the antitumor effect of Telomelysin on human malignant mesothelioma cell lines in vitro and in vivo.

Results: The XTT assay demonstrated that Telomelysin could efficiently kill four human mesothelioma cell lines H2052, H2452, H28, and 211H, all of which expressed the coxsackievirus and adenovirus receptor (CAR), in a dose-dependent manner. In vivo antitumor effect was also evaluated in an orthotopic pleural dissemination model. Intrathoracic administration of 2 x 10^6 plaque forming units (PFU) of Telomelysin markedly reduced the size (1 ± 1.8 mg vs. 190 ± 75 mg, p < 0.01) of H2452 tumors intrathoracically implanted into BALB/c- nu/nu mice compared to mock-treated mice.

Conclusions: These results suggest that locoregional administration of Telomelysin into the thoracic cavity may be efficacious in the prevention and treatment of pleural dissemination of human malignant mesothelioma.

P1-154 Mesothelioma and Other Thoracic Malignancy Posters, Mon, Sept 3
Antitumor effect of Telomerase-Selective Oncolytic Adenoviral Agent OBP-301 (Telomelysin) in pleural dissemination of human malignant mesothelioma
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P1-155 Mesothelioma and Other Thoracic Malignancy Posters, Mon, Sept 3
Asbestos fiber concentration in lung tissue of patients with malignant pleural mesothelioma
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Background: Although the association between asbestos exposure and the development of malignant pleural mesothelioma (MPM) is well recognized, the relationship between asbestos contents by fiber type and the risk of development for MPM remains unclear. In this study, we evaluated the asbestos contents by fiber type in the lung and the primary tumor of patients with resected MPM.

Methods: Asbestos fiber contents in the pulmonary parenchyma and tumor tissues were analyzed in 3 patients with MPM by transmission electron microscopy with energy-dispersive X-ray analysis using a low-temperature ashing procedure. The geometric mean content of total asbestos in the control subjects without history of asbestos exposure was used as reference, which was 1.83 x 10^6 fibers / g dry lung. (Reference: Sakai K et al. Asbestos Concentration and Fiber Size in Lungs of the Urban Residents. Japanese Journal of Public Health, 1991; 38: 762-770)

Results: Three patients were analyzed in this study, which were Case1: 50-year-old man, biphasic type, pT3N2M0 in the International Mesothelioma Interest Group staging system, Case2: 54-year-old man, biphasic type, pT2N0M0 and Case 3: 56-year-old man, epithelial type, pT4N0M0. All patients had a history of asbestos exposure and underwent an extrapleural pneumonectomy with curative intent. Asbestos fibers were not detected in the tumor tissues in all patients. The geometric mean content of total asbestos in lung tissues were 1.8 ± 1.4 (x 10^6 fibers / g dry lung), 5.42 ± 33.1 and 6.5 ± 3.7 in the case1, case2 and case3, respectively, which showed 1 time, 29.6 times and 3.6 times compared with that of the control subjects. The distributions of asbestos by fiber type in each patient were very different as following.

<table>
<thead>
<tr>
<th>Fiber Type</th>
<th>Case1</th>
<th>Case2</th>
<th>Case3</th>
</tr>
</thead>
<tbody>
<tr>
<td>chrysotile</td>
<td>71%</td>
<td>49%</td>
<td>11%</td>
</tr>
<tr>
<td>crocidolite</td>
<td>7%</td>
<td>42%</td>
<td>52%</td>
</tr>
<tr>
<td>amosite</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>others</td>
<td>15%</td>
<td>2%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Conclusions: Case1 had MPM without high level exposure of asbestos. On the other hand, case2 and case3 showed higher concentration of asbestos fiber in the lung tissue than control subject, which evidenced the high level exposure of asbestos. Those two patients also had a large proportion of crocidolite in the total asbestos fibers, which might be associated with the development of MPM. To elucidate the relation between the pulmonary asbestos fiber contents by fiber type and development of MPM, further investigation is considered necessary.

P1-156 Mesothelioma and Other Thoracic Malignancy Posters, Mon, Sept 3
Endobronchial metastasis of tumors of other primary origin
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Lungs represent one of the most common sites of secondary deposits of various primary tumors. However, incidence of endoluminal metastases is low(2-28%) because fiberoptic bronchoscopy is not performed routinely in all patients(pts) with pulmonary metastases. Also, these patients may also have low performance status and diagnosis is provided by other procedures. During 2005 in our department 3724 bronchoscopies were done, mostly under suspicion on lung cancer. In 46(1.23%) endobronchial metastases were found.
Male to female ratio was 17:29, mean age was 52.7 years (ranged from 31 to 74 years). Relapse free time varied from 6 months to 5 years. All patients had abnormal radiographic finding. Radiography was done on routine control examination in 60% of patients, who had no symptoms. The most common primary malignancy was laryngeal carcinoma (22pts-47.8%), breast carcinoma (6pts-13%), adenocarcinoma of the colon (5pts-10.8%), thyroid gland carcinoma (5pts-10.8%) cervical carcinoma of the uterus (3pts-6.52%) and other, less common tumors (stomach, esophagus, prostate, tongue). Bronchoscopic finding revealed that endoluminal metastases were more common in right lung (in 31 pts-67.4%). Most of the metastases were seen in upper lobe bronchi (52%). Biopsy was performed and pathohistological verification was obtained in all patients. In more then 1/2 of the patients histoty type was squamocellular carcinoma.

We can conclude that fiberoptic bronchoscopy with biopsy is simple, cheap technique in diagnosis of endobronchial metastases. Histological verification is 100% in centrally localized lesions.

P1-157 Mesothelioma and Other Thoracic Malignancy Posters, Mon, Sept 3
Mediastinal adenousquamous carcinoma with involved the left subclavian artery
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I would like to present the mediastinal adenosquamous cell carcinoma involved the left subclavian artery, left brachioceaphalic vein, left recurrent nerve and left phrenic nerve.

A 48-year-old male visited our institute with abnormal findings of left upper mediastinal on chest X ray. The left subclavian artery was involved with the tumor of 5.0 X 4.5 cm in diameter on chest CT scan. However, there were no left shoulder pain and lower arterial pressure of the left upper extremities than the right upper extremities. VATS (video-assisted thorascopic surgery) was performed for pathologiical diagnosis, and the pathologic diagnosis was adenosquamous cell carcinoma. PET (positron emission tomography) scan revealed the just uptake of the tumor site. So, we performed the mediastinal tumor resection and the combined resection of the left subclavian artery, the left brachioceaphalic vein, left recurrent nerve and left phrenic nerve. The left subclavian artery reconstructed with Gelvaeve 8mm, and the left brachioceaphalic vein reconstructed with ringed e-PTFE 10mm. The postoperative course was smooth and not eventful, he was discharge on the 10 days after operation.

P3-016 NT: Cytotoxic Chemotherapy Posters, Wed, Sept 5 – Thur, Sept 6
In vitro activity of picropodophyllin in lung cancer cell lines and association to the insulin-like Growth Factor-1 receptor
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ORKI, Uppsala, Sweden
Background: Insulin-like Growth Factor-1 (IGF-1) and its receptor (IGF-1R) are important for transformation and growth of malignant cells and for the prevention of apoptosis. IGF-1R is often over-expressed in malignant tumors and several oncogenes depend on intact IGF-1R to achieve their transforming activity.
Recently, members of the cyclophilin family were identified as potential inhibitors of the IGF-1 receptor tyrosine kinase. Picropodophyllin (PPP), in particular, shows promise since it demonstrates selectivity for IGF-1R without inhibiting activity of the insulin receptor or other more distantly related receptors. There is, however, on ongoing debate if inhibition of microtubule assembly contributes to the cytotoxic effects of PPP as this is the major mechanism of action for its epimer podophyllotoxin, PPT. Tumor cells of lung cancer also express IGF-1 receptors, but their role in the malignant phenotype is still not clear. The aim of this study was to investigate the role of IGF-1R in lung cancer and to evaluate its potential as a therapeutic target through use of PPP, a specific tyrosine kinase inhibitor of IGF-1R. We also investigated the relation between IGF-1 receptor status in cells and sensitivity to conventional and experimental chemotherapeutic agents, including PPT and other microtubule inhibiting agents.