obtained from 39 patients who were underwent thoracotomy without pleural effusion and severe pleural adhesion. 39 patients included 29 pathological stage I and consisted of 21 adenocarcinoma, 14 squamous cell carcinoma, 1 large cell carcinoma, and 3 small cell carcinoma. Elevated values (>40 ng/g/protein) were observed in 24 patients. The 3-year survival rate of the patients without elevation of CEA levels was significantly higher than with elevation (51% vs. 89%, p < 0.05). The 3-year disease-free survival rate was also significantly between the two groups (37% vs. 92%, p < 0.01). Especially in pathological stage I, both the 3-year survival and disease-free survival rate were 100%. It was confirmed that findings of immunohistological stain using CEA antigen correlated with degree of CEA levels in pleural lavage. CEA levels in peritoneal lavage can predict peritoneal recurrence in gastric cancer after curative resection in the literatures. In lung cancer after curative resection CEA levels in pleural lavage cannot predict pleural recurrence, whereas it can do all kind of recurrence (3 local and 7 distant). These results indicate that CEA level in pleural lavage could be a good indicator for postoperative prognostic factor of lung cancer.

920 FDG-PET imaging of Lung Cancer, the first experience in Czech Republic

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There is growing interest in FDG-PET monitoring lung cancer from diferent points of view in pneumo-oncology. In Czech Republic (11 mill.inhabitant, 78 866 km2) we have opportunity FDG-PET imaging from September 1999. PET centrum is situated in the capital Prague, Na Homolce Hospital. Every FDG-PET investigation is covered by health insurance.

We must strikly cut down wide field of imaging indicationes for high technical and practical data procesing complications together with money and time high consumption to be cost effective.

During the first 6 month was provide 388 FDG-PET investigations (appr. 1 pts. per week). From this number is 266 oncology and the part of these are 35 pneumo-ontology indications.

We use dedicated PET scarier ECAT EXACT, producer CTI/Siemens. Selectively was calculated standardized uptake value (SUV). Investigation was done by visual assesment and selectively by SUV.

FDG-PET, CT, clinical exmination were provide, the other exams according indication groups. We've used five basic indications groups:
- I. Mediastinal lymph note involment of NSCLC in preoperate staging
- II. Residual disease of NSCLC and influence on strategy of combinated locoregional therapy
- III. Recurrent disease of NSCLC
- IV. Distant metastases of NSCLC
- V. Peripheral lung lesion

On poster or snaps we present five brief case reports (FDG-PET and CT scans). Our further experiences (huge number of patients, influence on financial resources and political changes) are necessary if FDG-PET should be cost effective in the managment of Lung Cancer like standard practise in the term of Czech Republic conditions.

950 Study of peripheral lung cancers showing no abnormalities in chest radiography

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In our Center, screening for lung cancer using helical CT has been performed and we have investigated the usefulness of thoracic CT screening.

We retrospectively studied pulmonary nodules showing no abnormalities on chest radiographs for fifty months to facilitate the differential diagnosis.

Material and Methods: We reviewed 2642 subjects using helical CT at our center between June 1995 and March 2000. 280 pulmonary nodules (222 cases) showing no abnormalities on chest radiographs were detected excluding metastatic lung tumors. Helical CT scans were obtained using an Xvigor scanner (Toshiba, Tokyo) under the following conditions (Screening CT; 50 mAs, 120 kVp, 20 mm/sec./rot., High Resolution CT (HR CT); 200 mAs, 120 kVp, 2 mm/sec./rot.). In findings of HRCT, we classified shadow density into two types, solid density (vessels in lesion cannot be observed) and ground glass opacity (vessels in lesion can be observed). And we evaluated the pulmonary nodules about the existence of 5 findings (spicula, notching, pleural indentation, airbronchogram and involvement of pulmonary vessels).

Results:
1. 222 cases with a total of 280 foci out of 2642 individuals showing no abnormalities on chest radiographs were detected (8.4%).
2. 20 cases (21 foci) were, at present, found to be lung cancers (0.76%). Maximum tumor dimension ranged from 5 to 35 mm, and pathological or clinical stages were all Stage 1.
3. Solid nodules comprised 240 foci (3 to 19 mm), and 4 nodules were found to be lung cancers (2 adenoca. and 2 squamous cell ca.).
4. Nodules with GGO comprised 40 foci (5 to 35 mm), and 17 nodules (16 cases) were found to be lung cancers (42.5%); all adenoca, and subtypes were all BAC (bronchioloalveolar ca.).

Conclusion: As a result of this study, pulmonary nodules with GGO were strongly suggested to be early lung cancers. We found that helical CT is far superior to chest radiography in the early detection of lung cancer, and therefore the usefulness of thoracic CT screening is obvious.

951 Study of three-dimensional imaging of solitary pulmonary nodules

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Object: The helical CT scanner combined with powerful computer hardware as well as varous new algorithms for 3D rendering have improved the current technical performance of 3D imaging.

We investigated the usefulness of differential diagnosis for solitary pulmonary nodules using this new technology

Materials and Methods: Helical CT scans were obtained using an Xvigor scanner (Toshiba, Tokyo). A helical CT scan with a 2-mm section thickness and 2-mm/sec table feed time was performed during a single breath-hold. Each 3D image demonstrates the solitary pulmonary nodules and surrounding structures.

Results:
1. In papillary adenocarcinoma, irregular surface of nodule, pleural indentation and convergence of peripheral vessels and bronchi could be comprehended spatially. But in bronchioloalveolar carcinoma (BAC: type A), only smooth surface nodule could be observed.
2. In hamartoma, smooth surface of nodule and slight oppression to peripheral vessels and bronchi could be observed.
3. In AVM, flowing and inflowing vessels of nodule could be observed clearly.
4. In aspergilloma, nodular lesion in the cavity were comprehended spatially, so fungus ball could be strongly suspected.

Conclusion: 3D images offer a quick and comprehensive overview of the spatial extent of solitary pulmonary nodules, and are considered to be useful for differential diagnosis of solitary pulmonary nodules.