

Thirty minutes after FFB 12 pts (15 %) had and 68 (85 %) did not have ECG sings of coronary insufficiency.

During the procedure, the pts with coronary received O₂. Higher incidence of ECG evidence of coronary insufficiency after FFB can be explained by hypoxemia persiting after the procedure. Partial oxygen pressure (Pa O₂) was significantly reduced 30 min after FFB compared red to the initial ($p < 0.05$).

Administration of O₂ at least 30 minutes after the procedure to pts with coronary insufficiency is recommended.

516 APPLICATION OF ELECTROCHEMICAL ANALYSIS FOR IDENTIFICATION OF A CALCIFICATE EXTRACTED FROM A BRONHUS – A CASE REPORT

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A foreign body was unexpectedly extracted from a bronhus for the right upper lobe of a 53 year old patient during bronchoscopic exploration. Macroscopic observation of the "foreign body" did not provide any information on its origin. Later, by more detailed analysis, it was identified as an unusually localized calcification. Electrochemical and spectroscopic analysis are a reliable methods for more precise investigation of extracted foreign bodies and for determination of their biological activity which was also supported by our case report. The analysis revealed that complete biological death of all cells failed to occur within the calcification not even after its thirty-year long presence in the body. These facts suggested the presence of still active biological potential which may act as a nutrition base or as a replication base for potential microbes imprisoned within the calcification nucleus. This method is another contribution to application of chemistry in medicine to mutual benefit.

517 THE VALUE OF NEURON-SPECIFIC ENOLASE IN LUNG CANCER

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Small cell lung cancer (SCLC), may be potentially curable. A correct diagnosis of cancer cell type is important and serum markers are of great value. Although several markers have been suggested, they were of limited value because of insufficient specificity (Burghuber, O. C., et al. Cancer 1990; 65: 1386–1390). To assess the value of serum neuron-specific enolase (s-NSE) as a possible marker of SCLC, s-NSE levels of 33 patients with SCLC (22 patients with extensive disease and 11 patients with limited disease) were compared with the s-NSE levels of patients with non-small cell lung cancer (NSCLC), nonmalignant lung diseases, various other malignancies and healthy control subjects. Serum NSE levels were as follows; SCLC: 58.5 mcg/l, NSCLC: 10.8 mcg/l, various other malignancies: 8.1 mcg/l, other diseases: 6.1 mcg/l, healthy control subjects: 3.6 mcg/l. The difference between limited disease and extensive disease groups of SCLC patients was statistically significant ($p < 0.01$). The mean values of NSE were 13.9 ± 9.2 mcg/l and 80.7 ± 65.2 mcg/l respectively. Our results indicated that s-NSE seems to be specific for SCLC (83%) whereas sensitivity seems to be dependent on the stage of the disease.

518 ENDOBRONCHIAL HAMARTOMA: ENDOSCOPIC RESECTION

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The incidence of lung hamartoma is reported as 0.25 % with only 10% presenting as endobronchially. We are reporting four endobronchial hamartoma cases. All of the patients were men, ranging from 37 to 78 years of age (Table). The most common symptoms were dyspnea and fever. Chest X-rays revealed atelectasis in 3 of 4 cases. The CT of these cases showed hilar mass and atelectasis without mediastinal invasion or adenopathy. In 4th case, there was a right unilateral hyperlucency on the chest X-ray. CT examination of this case showed a mass plugging nearly entire lumen of right main bronchus with extension into the trachea. Biopsy with the rigid bronchoscope was diagnostic in only two cases. Endoscopic resection was successfully performed by rigid bronchoscope in one of the patients.

Age Sex	Chest X-ray	Chest CT	Treatment
78/M	Atelectasis of the left lung	Hilar mass	Endoscopic resection
53/M	Atelectasis of right middle and lower lobes	Hilar mass	Bilobectomy
37/M	Atelectasis of left upper lobe	Hilar mass	Lobectomy
44/M	Right hyperlucency	Mass in the right main bronchus	Resection via bronchotomy

519 DIETARY BETA-CAROTENE AND VITAMIN E AND THEIR SERUM CONCENTRATIONS IN MEN WITH LUNG CANCER AND HEALTHY CONTROLS

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We evaluated the intake of beta-carotene and vitamin E and their serum concentrations in men subsequently diagnosed with lung cancer and in men with no cancer. Between 1985–1988 a cancer prevention trial was introduced in Finland among male smokers aged 50–69. At the first visit, lung cancer was diagnosed in 93 men. Healthy controls (n=400) were randomly selected from the same population. Habitual dietary intake during the year preceding cancer diagnosis was investigated with a comprehensive food use questionnaire, and blood samples were collected for analysis of beta-carotene and alphanatocopherol.

Men with lung cancer had daily ingested more beta-carotene (mean 2119 sd 1613 µg) and less vitamin E (mean 10.5 sd 7.3 mg) than controls (mean 1992 sd 1437 µg and 11.7 sd 6.1 mg), but the differences were not significant. Most of the discrepancy in vitamin E intake was attributable to varying use of vegetable oils and margarine. Men with lung cancer had lower serum beta-carotene (mean 211 sd 199 µg/l) and significantly lower alphanatocopherol (mean 11.05 sd 3.22 mg/l) than controls (mean 217 sd 216 µg/l, 11.80 sd 3.06 mg/l). The difference in alpha-

tocopherol concentrations between the groups disappeared, however, after adjusting for serum total cholesterol.

These data do not support earlier findings suggesting an increased lung cancer risk in male smokers with low intake or serum concentrations of beta-carotene and vitamin E. A further comparison of their tertiles or quintiles by case-control status might nevertheless change the results.

520 FOLLOW-UP STUDY OF PATIENTS WITH NORMAL CHEST-X-RAY AND HEMOPTYSIS: OUR PRELIMINARY DATA

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Hemoptysis is always an alarming symptom both for physician and patient also in normal chest-x-ray.

We studied 80 patients (pts) (52 males, 28 females), between 1987 and 1992, to precociously define hemoptysis diagnosis and evolution.

All pts underwent both fibrebronchoscopy (FBS) and chest-x-ray immediately and then each year during control visit.

During the first visit we found 4 bronchogenic carcinoma, 1 bronchogenic metastasis of breast carcinoma, 15 bronchiectasis, 40 chronic bronchitis.

We found a normal endobronchial conditions in 10 pts, while an insulated bleeding from a lobar bronchus without a detectable cause in other 10.

Of 80 pts, 3 died in the first two years of follow-up for various reasons (car accidents, work accidents) and 7 changed town. After five years of follow-up of the 10 pts with insulated bleeding, 7 did not show clinical and radiological symptoms, 2 died for cardiac infarction and 1 suffered bronchogenic carcinoma.

Our data show that it is important in pts with hemoptysis to exclude a bronchogenic carcinoma and to diagnose the real disease through normal chest-x-ray and FBS. Infact the long term prognosis of pts with hemoptysis without detectable cause is good.

521 DIHYDROCODEINE IN THE PREMEDIATION TO FIBREBRONCHOSCOPY

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This study aim was to evaluate the Dihydrocodeine (D.) clinical efficacy in preventing the cough in patients (pts) undergoing fibrebronchoscopy (FBS). We studied 30 pts, (19 M and 11 F) aged between 20 and 70, affected by respiratory pathology. D. syrup was given (one tea-spoon each time equal to 7.50 mg active drug) to 15 pts one hour before FBS together with atropine and diazepam; only premedication with atropine and diazepam was administered to the other 15 pts (control group). The number of the coughing fits and their intensity during and 2 hours after FBS, the number of anaesthetic bolus (lidocaine 2%) administered before and during FBS were evaluated in all pts; moreover, PaO₂, PaCO₂, respiratory function (VC, FEV₁, FEF₅₀-FEF₂₅), blood pressure and heart rate were detected before FBS, soon after and two hours later. In the group of pts taking D., different from the control

group, noticeable reduction in the number of the coughing fits and their intensity were noticed during FBS and the two following hours, together with global reduction in the utilized anaesthetic (6 ml versus 10 ml in the control group), showing these pts more compliance during FBS together with a better execution of bacteriologic and cytologic specimens, biopsy and brushing by operator. It is important to notice that, knowing the action of drug sedation on the cough centre and having a smallest depressing action on the respiratory centre, no statistical significant alterations were demonstrated regarding PaO₂, PaCO₂, respiratory function parameters, blood pressure and heart rate, resulting D. very well tolerated and without side effects. Different results regarding the various pulmonary pathologies in the studied pts were not noticed.

522 ULTRASONOGRAPHY (US) A NONINVASIVE METHOD OF ASSESSMENT OF THE CHARACTER OF PLEURAL EFFUSION (PE)

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700 patients (M – 430; F – 270; aged: 16–82 years) with PE were examined by US. The various US pattern of PE was established and the relationship with the character, etiology, time of duration of PE, effectiveness of thoracenteses, the course of management, and the results of the whole pleural fluid examinations were analyzed.

We distinguished 5 main US pattern of PE:

1. Pure echo-free zone – characteristic for transudates, chylothorax and for most of malignant PE;
2. Moving freely within the fluid aeriya bands-seen most often in infectious serous effusions (e. g. tuberculous);
3. Filamentary septated structures forming a net often making thoracentesis ineffective and affecting the course of management-seen in infectious PE of long duration (e. g. parapneumonic);
4. Echogenic structures forming a layer at the bottom of fluid collections – recorded in empyemas;
5. Mixed fluid-solid aeriya changing in the course of the disease – characteristic for hemothorax. Comparison of US with the results of the whole PE examinations showed the complexity of the US picture to be related to the number of cells, protein level and the character of PE.

Conclusions: US appeared to be a useful, noninvasive method of assessment of the character of PE (transudate, exudate, pus, blood), of time of duration of PE, helpful in successful thoracenteses and in treatment, especially of infectious complicated PE.

523 THE PLAIL OF TREPAN-BIOPSY IN PHTHYIOLOGIC CLINIC

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In cases of haemathological pathology for making the correct diagnosis trepan-biopsy has been successfully used for over a long period of time.

In our clinic the following method of investigation is used:

1. in case of prolonged fever of obscure etiology;
2. on suspicion of Miliary tuberculosis (TP);
3. in cases of obscure dissemination;
4. for the purpose of eliminating metastatic changes in the marrow.