

and navigation of interventional procedures lead to the safer, more precise, and less invasive for the patient, and easy to construct an image, depending on the purpose, in 5-10 minutes using Synapse Vincent. Moreover, if the lesion is in the parenchyma or sub-bronchial lumen, it helps to perform simulation with virtual skeletal subtraction to estimate potential lesion movement. By using virtual navigated system for simulation, bronchial intervention was performed with no complications safely and precisely.

Conclusion: Preoperative simulation using virtual navigated bronchial intervention reduces the surgeon's stress levels, particularly when highly skilled techniques are needed to operate on lesions. This task, including interventional simulation and navigation both pre- and during manipulation, could lead to greater safety and precision. These technological instruments should be helpful for bronchial intervention procedures, and are also excellent devices for educational training.

Keywords: Interventional bronchology, Virtual navigation system

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EBUS plus Fluoroscopy-Guided Biopsy Compared to Fluoroscopy-Guided TBB for Obtaining Samples of Peripheral Pulmonary Lesions



Topic: Pulmonology

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Background: Early detection of peripheral pulmonary nodules and histopathologic diagnosis of biopsy samples of the nodules are keys to improving survival rates of lung cancer. Steady improvement in bronchoscopic procedures during the past few decades enable detection and biopsy of much smaller nodules. We report a meta-analysis of recent reports comparing the diagnostic yields of endobronchial ultrasonography plus fluoroscopically-guided transbronchial biopsy with that of fluoroscopically-guided transbronchial biopsy without the use of endobronchial ultrasonography.

Methods: We searched Medline, the Cochrane Library, PubMed, and Google Scholar and found five articles that met our inclusion criteria. One of those articles did not strictly meet our criteria, in that it was deficient in quantitation, but we included it because it contained other relevant information.

Results: Meta-analysis from the 4 studies revealed a higher positive diagnostic yield in the group with

endobronchial ultrasonographic guidance in addition to fluoroscopy than the group diagnosed with only conventional fluoroscopic guidance to the lesion, for large and small lesions.

Conclusion: Obtaining transbronchial biopsy samples for histopathological diagnosis is enhanced by addition of endobronchial ultrasonography to conventional fluoroscopic guidance; this is especially important for patients with small peripheral lung lesions who benefit greatly from early diagnosis.

Keywords: endobronchial ultrasound, Lung biopsy, peripheral pulmonary lesion, fluoroscopy-guided

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The Survival of Our Patients Diagnosed with Lung Cancer in 2013



Topic: Pulmonology

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Background: Lung cancer is an important health problem. To investigate the survival of our patients diagnosed in our hospital with lung cancer and the situations that effect.

Methods: Using the data processing and archive system of our hospital, patients were examined who had operated with C34 code in 2013. The rates of survival were calculated using Kaplan-Meier Method and compared with Long-rank method. The influence of age on survival was analyzed with Cox's proportional hazards regression model. For multivariate analysis Cox's proportional hazards regression model also used. The level of $P < 0.05$ accepted as significant.

Results: 1563(83.5%) of 1871 patients were male and 308 of the were female and their average age were found as 62.5 years, the average age in male was 62.7 while 61.4 in female. Median age was 62. The rate of M/F was

calculated as 5.1, but there were no difference in terms of the average age ($p > 0.05$). We had 16 male and 11 female patients were about 27 (1.4%), under the age of 40. As a histological type, 717 (38.3%) were squamous carcinoma, 692 (37%) were adenocarcinoma, 288 (15.4%) were small cell, 174 (9.3%) unidentified cell malign carcinoma. While with 42.8% in male squamous carcinoma was frequent, adenocarcinoma with 57.8% in female was frequent. The average survival was calculated as 18 months, median survival as 12 months (95 and CI 11-13 months) and the rate of 2 years survival as 33.4%. While surgical treatment were applied to 380 patients (20.3%), chemotherapy were applied to 1100 patients (58.8%) and palliative care were applied to 302 (16.1%) patients. The 2 years survival time was found significantly high in patients received surgical treatment. (73% in spite of 23.3%) ($p < 0.0001$). While the 2 years survival of patients receiving chemotherapy was calculated as 25.6%, the patients receiving palliative care was 20.5% ($p = 0.08$). The median survival time was found 28.4 months in patients receiving surgical treatment, patients receiving chemotherapy 14 months and palliative care was 11.5 months. The patients received neoadjuvant therapy lived 31 months. Evaluation made as multivariate analyses; age, gender, with histological type, the treatment variables one by one were found effective on survival as $p = 0.0001$ level.

Conclusion: It was obtained that the patients diagnosed with lung cancer in our hospital, after they diagnosed they lived averagely 16 months. The patients received surgical treatment with 73%, with 2 years' time survival lived significantly more than the other treatments.

Keywords: lung cancer, survey, effecting factors, surgery

P1.04-018

Occurrence of Triple Multiple Malignancies with Last Lung Squamous Cell Carcinoma - Case Reports



Topic: Pulmonology

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Background: The incidence of multiple primary tumors (MMPNs) ranges from 0.73 to 11.7%. Most often occur double malignancies - 3-5%, much less triples - 0.5%. The aim of the study is to describe the three cases of triple metachronous multiple malignancies, the last of which was a squamous cell carcinoma of lung in all three patients.

Methods: A retrospective analysis of all medical histories (1163) patients who were hospitalized in the Pulmonary Hospital in Olsztyn, Poland in the period from January 2013 to October 2015, with a diagnosis of at least one neoplasm was performed. We selected only these patients who were diagnosed with histologically confirmed three independent malignancies.

Results: The incidence of tumors of triple malignancies was 0.52%. Of all cases of triple malignancies, we selected 3 cases - 2 men and 1 woman, whose last-growing cancer, histopathologically confirmed, was squamous cell lung cancer. Case No. 1 - 54-year-old man with COPD (GOLD 2), who gave up smoking, melanoma of the scalp treated surgically and by chemotherapy (6xDTIC) at the age of 19, Hodgkin NS II at the age of 38 treated with 6xABVD, at the age of 53 years diagnosed with squamous cell carcinoma of the left lung in stage T2N1M0. Due to the low value of spirometry disqualified from surgery, qualified for radiotherapy. Case No. 2 67-year-old man with a history of hypertension, colon cancer at the age of 56, after a laryngectomy because of laryngeal squamous cell carcinoma at the age of 63, diagnosed with asymptomatic squamous cell carcinoma of the right lung in a stage T2N0M0 at the age of 65. Case No. 3 74-year-old woman with atrial fibrillation, stable ischemic heart disease, tongue cancer at the age of 67, and its recurrence in the age of 72, after a right-sided mastectomy and chemotherapy for breast cancer at the age of 69, at the age of 74 diagnosed with squamous cell carcinoma of the left lung. The average age of first cancer was 47, the second 57 years, the third 64 years.

Conclusion: 1. Lung cancer often occurs as a subsequent malignancy 2. Another primary malignancy may develop even 30 years later, and therefore the possibility of development the third or another cancer should be considered for all cancer patients. 3. Development of synchronous or metachronous neoplasms should be considered in any case in patients with previous oncological treatment.

Keywords: case report, triple metachronous multiple malignancies, multiple malignancies, Squamous cell lung cancer

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Final Analysis of Lung Microbiome from Patients Undergoing Bronchoscopy



Topic: Pulmonology

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