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SEMI-RIGID THORACOSCOPY: EXPERIENCE FROM A TERTIARY CARE CENTRE

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Introduction: The accurate diagnosis of pleural effusion is challenging because even after thoracentesis and/or closed pleural biopsy, 25–40% of pleural effusion remains undiagnosed. Pleuroscopy also referred to as medical thoracoscopy is generally described as the evaluation of the pleural space. A visual inspection of the pleural space, drainage of pleural effusion, and performance of pleural biopsies are the commonly performed procedures during pleuroscopy.

Aims: The aim of study is to find the diagnostic yield of a pleuroscopic pleural biopsy and to find its complication rates.

Methods: A retrospective study conducted among patients underwent pleuroscopic procedure using semi rigid thoracoscopic in our centre from January 2014 until June 2015.

Results: A total of 71 patients (43 males and 28 females; mean age 49 years) underwent pleuroscopy. Overall yield in the present study was 88.8% (63 out of 71). Majority of patients had histopathology examination (HPE) confirmed malignancy (46.5%), 42.3% were infective origin and the rest were normal (11.2%). Of the malignancy subtype, adenocarcinoma (85%) followed by squamous cell carcinoma (9%) and metastatic carcinoma (6%). Tuberculosis remained the most common cause of infective pleural effusion (90%) and followed by empyema (10%). Not all parietal pleura nodules were malignancy as we found 9 patients confirmed infective origin from HPE findings. 9 patients found to have sago like appearance in the parietal pleura were confirmed tuberculosis. 85.9% had no complications, 9 patients had minor complication such as subcutaneous emphysema (6 patients), infection (3 patients) and prolonged air leak (one patient).

Conclusions: Pleuroscopy is a safe, simple, and valuable tool in the diagnosis of undiagnosed exudative pleural effusion with minimal complication rates.

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DIAGNOSTIC YIELD OF TRANSBRONCHIAL NEEDLE ASPIRATION (TBNA) IN PATIENTS WITH UNDIAGNOSED SUBARACIN LYMPHADENOPATHY

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Objective: Assess the diagnostic yield of conventional transbronchial needle aspiration in subcarinal mediastinal lymphadenopathy in our institute.

Materials and methods: Fiberoptic bronchoscopy was done in all referral patients with subcarinal lymphadenopathy (greater than 1 cm in short axis). Blind TBNA with Olympus 21 gauge aspiration needle was performed. 4 samples were taken from each patient. Two samples were smeared on slide. One sample was sent in normal saline for tuberculosis. The last one was sent in formalin for cell block.

Results: 12 patients were evaluated by this method. Samples from lymph nodes were diagnostic in 7(58%) patients. 3(25%) samples were adequate but non diagnostic. In 2(17%) cases the samples were inadequate. We were able to make proper diagnosis in 4 out of 5 malignant cases and in 3 out of 5 cases of sarcoidosis.

Conclusions: TBNA was diagnostic in 7 of 10 cases with adequate samples. The presence of an expert cytopathologist at site can increase the diagnostic yield.

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THE SHORT TERM EFFICACY OF BRONCHIAL ARTERY EMBOLIZATION FOR HEMOPTYSIS: A RETROSPECTIVE COHORT STUDY

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Background: Bronchial artery embolization(BAE) is considered a first-line treatment for haemoptysis recently. In our institution we perform BAE for not

only massive haemoptysis but also repeated little haemoptysis associated with vascular abnormality. To evaluate the efficacy of BAE we conducted a retrospective cohort study.

Method: We enrolled 33 patients who were performed BAE using platinum coil or gelatin sponge from Jan 2009 to Aug 2015. We assessed bleeding control rate at the point of 3 months and 6 months after BAE.

Results: The patients included 19 men and 14 women with a median age of 65 years (range 29–89). Underlying lung disease is bronchiectasis (n = 7), nontuberculous mycobacterial infection (n = 7), aspergillosis (n = 2) and the others (n = 3). There were 10 cases of idiopathic haemoptysis, and all of them had vascular abnormality. We experienced no serious adverse complication of BAE. Haemoptysis control rate was 96% at 3 months and 78% at 6 months. Embolic materials used for patients recurred haemoptysis caused by recanalization of previously embolized arteries were gelatin sponge only (p < 0.01).

Discussion: The result of our institution is consistent with other previously reported result(1–2). And this study suggests that using platinum coil as embolic material decrease the risk of recanalization.

Conclusion: BAE is effective for short term control of haemoptysis.

References

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ENDBRONCHIAL ULTRASOUND TRANSBRONCHIAL NEEDLE ASPIRATION (EBUS-TBNA) IN A TERTIARY TEACHING HOSPITAL: TRAINING EFFECT AND TRAINEE IMPACT

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Introduction: EBUS-TBNA as reported in the literature by centres of excellence has a high diagnostic yield and low complication rate. The impact of the procedure in a tertiary hospital with multiple endoscopists and the involvement of trainees is uncertain.

Methods: All patients who underwent EBUS-TBNA from August 2008 to December 2013 were prospectively evaluated. Diagnostic yield was defined as either confirmed histopathological or microbiological result. Negative results were subject to either clinical and radiological surveillance or had alternative procedures before true negatives were confirmed. Complications were classified as major or minor. Major events included bleeding requiring endobronchial therapies such as ice-cold saline or adrenaline, sustained hypotension or hypoxaemia (beyond the procedure), or any event that required escalation of care. In addition, we analysed the effect of trainee participation.

Results: 680 patients were included in our study. The median age of our patients was 61 years old (17 to 88 years old). 880 lymph nodes and 148 central lung masses were sampled. Prevalence of lung cancer in our study was 68.5%. All procedures were performed under moderate sedation in the endoscopy suite. The overall diagnostic yield of EBUS-TBNA was 84.7%. The yield by year was: 83% in 2008/2009, 80% in 2010, 82% in 2011, 87% in 2012, and 90% in 2013. Diagnostic yield with trainee participation was 87% vs 81% without (p = 0.03).

284 patients underwent EBUS-TBNA solely without other concomitant bronchoscopic sampling. 35 patients (12.3%) experienced complications, of which 13 were major (4.6%). There were no deaths. The complication rate with trainee participation was 15.8% vs 7.6% without (p = 0.04). The complication rate by year was: 1.9% in 2008/2009, 7.3% in 2010, 11.9% in 2011, 11.4% in 2012 and 23.1% in 2013. Trainee participation rate had also increased: 15.1% in 2008/2009, 39% in 2010, 66.7% in 2011, 72.9% in 2012, and 79.5% in 2013.

Conclusions: The results in expert centres can be replicated in hospitals with multiple endoscopists performing EBUS-TBNA. However, this was achieved after an initial 'training period' where the yield was 80% to 83%. Trainee participation appears to impact the diagnostic yield and complication rate. The impact of a structured bronchoscopy training programme and simulation is the subject of ongoing study.

The authors have no conflicts of interests.