CK19 staining was assessed for percentage and the intensity of staining. Staining was diffuse in all the 10 cases of adenocarcinoma in which IHC was applied. In cases of squamous cell carcinoma negative staining for CK 19 was seen in 1/7 (14.3%) cases while 7/8 (87.5%) cases showed diffuse staining. Small cell carcinoma showed diffuse staining in 1/6 (16.7%) cases, focal staining in 1/6 (16.7%) cases and negative in 4/6 (66.7%) cases. In cases of non small cell lung cancer intensity of staining was strong (3+) in 16/19 [84.2%] cases, moderate (2+) in 2/19 [10.5%], poor (1+) staining in 0/19 [0] and no staining (0) in 1/19 cases. One case of Metastatic papillary thyroid carcinoma showed diffuse (4+) strong (3+) staining with CK19. Both the two metastatic ductal carcinoma were positive for CK 19, with one case showing diffuse strong positivity and other diffuse moderate staining. One case of mesenchymal neoplasm showed diffuse moderate staining.

Discussion : EBUS-TBNA is a novel, minimally invasive method to sample peribronchial masses using realtime guidance. Significance of cell block was highlighted in one case of malignancy was detected on cell block with negative smears. Furthermore, cell block with immunohistochemistry allowed the diagnosis of type of malignancy in 10 cases. Diagnosis was made on cell blocks but not on biopsy in 6 cases. It is a prognostic marker for NSCLC (Weak CK19 expression is a predictor of poorer prognosis in squamous cell carcinoma)[1]. The weak expression of CK19, as determined by immunostaining intensity, was a significant predictor of poorer disease-specific survival (p=0.032)[2].CK19 expression was detected in 94.6% of ADCs, 93.6% of SGCs, 54.5% of LCCs, 54.8% of PCs, 77.4% of LCNECs, 31.8% of SCCs, 34.0% of CTs, and 92.9% of malignant mesotheliomas[3].

EBUS-TBNA procedure that has enabled multidisciplinary and hilar lymph node assessment with a high sensitivity. Complications from EBUS-TBNA are rare.

Conclusions: EBUS-TBNA has high diagnostic yield in cases of intrathoracic neoplasms. The CK 19 expression on the cell blocks revealed high rate of expression in the cases of non small cell lung cancers and a low rate of expression in cases of small cell lung carcinoma. The cases showed diffuse strong staining with CK 19 displayed better prognosis in compare to focal week staining with CK19 had worse prognosis.

References: