

**DIAGNOSTIC VALUE OF POST BRONCHOSCOPIC SPUTUM AND
BRONCHOSCOPY GUIDED CYTOLOGY IN DIAGNOSING PULMONARY
LESIONS**

By

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ABSTRACT

BACKGROUND AND OBJECTIVES:

Bronchoscopy guided cytology samples like bronchial wash, bronchial brush, bronchoalveolar lavage and post bronchoscopy sputum samples are necessary for diagnosing lung cancers and pulmonary infections. The aim of our study was to study the cytomorphological features of post bronchoscopy sputum and bronchoscopy guided cytology samples including bronchial wash, bronchial brush and bronchoalveolar lavage and to compare the same with bronchoscopic biopsies.

METHODOLOGY:

All the post bronchoscopy sputum samples, bronchial wash, bronchial brush, bronchoalveolar lavage, bronchoscopic biopsies were received in pathology laboratory of SDM College of Medical Sciences and Hospital, Dharwad during the study period from 1st June 2019 to 31st May 2021. A total of 181 cytology samples were collected from 111 patients. For 86 samples, cytohistologic correlation could be done.

RESULTS:

In our study, cytology samples could detect infections like actinomycosis, mucormycosis, tuberculosis and candidiasis. Malignancies like adenocarcinoma, NSCLC favour adenocarcinoma and NSCLC (NOS) were also diagnosed. A possibility of small cell carcinoma was suggested in 2 patients- 1 in bronchial wash smears and the other was in bronchial brush smears, both of which were confirmed on histopathological examination and IHC. The most common malignancy diagnosed by cytology was adenocarcinoma. The diagnostic accuracy of bronchial brush was

93.75%, bronchial wash and /or bronchoalveolar lavage was 78.72% while for post bronchoscopy sputum the diagnostic accuracy was 52.17%.

CONCLUSION:

Cytology is a very specific diagnostic tool in diagnosing pulmonary malignancies without any false positive cases in our study. Also, cytology samples are useful in diagnosing infectious organisms which are not detected in the biopsies. Also, cytology samples help in diagnosis even in those patients in whom biopsies were not possible due to the absence of an endoscopically visible lesion.

KEYWORDS: Post bronchoscopy sputum; Bronchial wash; Bronchial brush; Bronchoscopic biopsy; Exfoliative respiratory cytology; Fiberoptic Bronchoscopy.