

Respiratory 2020: EBBC-efficacy of bronchial brush cytology in evaluation of bronchopulmonary lesion- Bashar Hanna Azar, Hawler Medical University

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History of lung malignant growth goes back to the mid 1400s, when the rate of death of roughly half of excavators working along the outskirts of Germany and the Czech Republic happened due to a pneumonic illness called bergkrankheit (mountain disease).^{1,2} Lung malignant growth is one of the most widely recognized malignancies among the industrialized countries. There are 6,000,000 new instances of lung malignancy which compares to 12.7% of the world's disease rate that were analyzed in 2008.³ For the treatment of lung malignant growth in most ideal and effective manner, early conclusion at a beginning time is the key.

For early determination various modalities can be applied eg. radiology, bronchoscopy, bronchial biopsy, brushing, bronchoalveolar lavage (BAL) cytology etc.⁴ Bronchial biopsies can't be acted in increasingly fringe locales or in patients in danger of discharge. Bronchoscopic washing, brushing might be utilized to supplement tissue biopsies in the diagnosing lung lesions.^{5,6} Bronchoalveolar lavage (BAL), which was initially evolved as helpful instrument for pneumonic conditions like aspiratory alveolar proteinosis, cystic fibrosis and obstinate asthma, likewise has picked up acknowledgment and consistent ubiquity as an apparatus for diagnosing lung cancer.⁷ Bronchial brushing (BB) is where surface of a presumed injury, envisioned through a bronchoscope, is scratched by brush that are uncommonly intended to go through bronchoscope so as to gather the cytological example. Bronchial brushings can be utilized for exfoliative cytology or microbiological investigation. Bronchial brushings for exfoliative cytology utilize expendable cytology brush, with an indicative yield of 72% and 45%, separately, for focal and fringe lesions.⁸ Confirmation of the sort of lung disease by cytology is of most extreme significance before treatment can be resolved.

The point of the current investigation was to contemplate the viability of bronchoalveolar lavage, bronchial brush cytology and bronchial biopsy in diagnosing lung disease. Adaptable fiberoptic bronchoscopy is regularly the underlying method for finding of lung and bronchial tumors. Numerous examinations have indicated the high precision pace of bronchial washing and brushing cytology in the assessment of neoplastic and non-neoplastic bronchopulmonary injuries.

Background: Fiber optic bronchoscopy is the most regularly utilized technique for diagnosing lung malignant growth. A few strategies, for example, biopsy, bronchial brushing and bronchial washing are generally utilized together in view of their consolidated high demonstrative value.

Objective: The principle target of this examination was to assess the adequacy of bronchial brush (BB) cytology in contrast with bronchial wash cytology (BW) in the conclusion of bronchopulmonary sores.

Methods: Absolutely 1,691 patients (77% guys and 23% females) were researched for suspected lung disease between January 2000 and December 2010 in Rizgary Teaching Hospital in Erbil, Kurdistan. The period of patients changed between 11 to 100 years. Adaptable bronchoscopic examples of bronchoalveolar lavage (wash) and bronchial brush cytology were taken and prepared according to standard methods of cytology.

Results: The outcomes showed that the mean age was 62.2 ± 0.35 for the male patients and 57.5 ± 0.77 for female patients. We found that 92.5% of the male patients and 54.1% of the female patients were smokers. Clinical discoveries and bronchoscopy assessment indicated that 693 patients had lung malignant growth, 83.7% of them were guys and just 16.3% were female patients, with male to female proportion around 5:1. Pneumonic cytology from BB and BW is significant apparatus in the analysis of lung malignancies and has been utilized in the current investigation. Complete cytological outcomes were accessible from 1,074 patients. Cytology uncovered 19% instances of harm and 10% were analyzed as atypical/dubious. Kindhearted and insufficient (hypocellular examples) were 74% and 7.2% separately. Strangely, it has been discovered that 57% of the harmful examples were from BB cytology contrasted with 43% from BW cytology. Further, it was discovered that atypical/dubious and hypocellular tests from BB cytology were 20% and 9%, individually, contrasted with 80% and 91% separately, from BW cytology ($p < 0.001$). BB cytology demonstrated 65% affectability, 90% explicitness and 71% exactness, while BW cytology indicated 48.5% affectability, 81% particularity and 68% precision. Positive prescient worth and negative prescient incentive from BB

cytology were 95% and 44.3% separately, while the qualities for BW cytology were 62% and 71% individually. The most well-known kind of tumors found in this examination was squamous cell carcinoma.

Conclusion: This investigation affirms that bronchial brush cytology was better than bronchial wash cytology in the analysis and morphological composing of lung tumors.