OMICS International
conferenceseries.com

J Pulm Respir Med 2015, 5:3
http://dx.doi.org/10.4172/2161-105X.S1.008

International Conference and Exhibition on
Lung Disorders & Therapeutics
July 13-15, 2015 Baltimore, Maryland, USA

Exobronchial pulmonary eye: Ultrasound guided transbronchial lung biopsy in pulmonary shadows with negative endobronchial findings

Ahmed Mohammed Abumossalam, Abdelgawad T T, Moawd A A and **Shebl A M**
Mansoura University, Egypt

Background: Transbronchial lung biopsy (TBLB) is one of the most imperative applications of flexible bronchoscopy. A diagnostic TBLB may preclude the need for an open lung biopsy.

Purpose: The aim of this study is to clarify the diagnostic acquiesce of ultrasound guided TBLB in pulmonary shadows with negative endobronchial findings in variant parenchymal pulmonary lesions.

Patients & Methods: One hundred and seventeen patients with radiological pulmonary shadows were submitted for fiberoptic bronchscopy and underwent TBLB supported by computed tomography (CT) chest for segmental localization and in place ultrasonographic assessment with ultrasound unit by convex two dimensional probes.

Results: TBLB succeeded in the diagnosis of 79 cases out of 117 cases (67.52%) from first session and failed in 38 cases. Follow up of these cases was considered for two weeks; 18 cases proved to be inflammatory consolidation and improved with nonspecific antimicrobial and 12 cases underwent CT guided true cut biopsy and proved to be:2 cases of pulmonary tuberculosis (TB), 6 cases of squamous cell carcinoma and 4 cases of pulmonary Hodgkin lymphoma. Six cases diagnosed to be adenocarcinoma and 2 cases of sarciodosis by a second TBLB.

Conclusion: The ultrasound guided TBLB specimen can provide valuable information for clinical management in the setting of unifocal localized pulmonary disease without obvious endobronchial finding lending a hand with transthoracic ultrasound for selecting appropriate patients to undergo biopsy and in limiting the differential diagnosis.

abumossalam79@yahoo.com

IOS for differential diagnosis of asthma and COPD: An Indian experience

Arvind Bhome, Bill Brashier, Vandana Vincent, Subhabarata Moitra and **Sapna Madas**
ICOLD, India

Introduction: Managing severe persistent asthma with airway remodeling and severe or very severe COPD is a daily challenge for the respiratory practitioner. Impulse Oscillometry (IOS) is simple technique with potential to measure frequency dependent resistive, elastic and inertial properties of the lung during tidal breathing. Understanding the differences in lung functions measured by IOS between asthma and COPD, compared to healthy subjects should help in differential diagnosis and choice of therapy.

Aim: To compare lung physiology by IOS in patients of COPD, Asthma versus Healthy subjects.

Methods: 100 stable-asthma, 101 stable-COPD and 55 healthy subjects underwent pre-post bronchodilator IOS measurement according to ERS/ ATS criteria. Age-corrected Post-bronchodilator measurements were used for comparison analysis using log transformation and ANCOVA.

Results: Compared with healthy subjects, both asthmatic and COPD-subjects had higher resistance (R5Hz, R20Hz), impedance at 5Hz (Z5Hz), reactance at 5Hz (X5Hz), area-of-reactance (Ax) and resonance-frequency (Rf). The differences between asthma and COPD were not appreciable with pre-bronchodilator IOS parameters. However, compared to asthmatics, COPD subjects had higher post bronchodilator frequency dependency R5Hz-R20Hz [0.15 (0.07,0.30) vs. 0.30 (0.21,0.41) P=0.016], X5Hz [kPa/(L/s)] [(median (IQR): -0.20 (-0.37, -0.13) vs. -0.51 (-0.84, -0.29) p<0.0001)], Ax [kPa/L] [median (IQR): (1.293 (0.673, 3.725) vs. 4.702 (2.741, 7.796), p<0.0001)] and Rf [median (IQR) 22.34 (16.40, 28.38) 30.73 (25.60, 35.92), p<0.0001].

Conclusion: IOS can differentiate severe asthma and COPD. The differences are appreciable with post-bronchodilator elastance components (higher in COPD patients e.g. frequency dependency, X, Fers and AX values) but not resistive components, at tidal breathing maneuvers.

arvind.bhome@gmail.com