

APCB's Abstracts 2

9th Asian Pacific Congress on Bronchology and Interventional Pulmonology

DOI: <https://doi.org/10.32896/tij.v3n2.16-21>

Published: 30.06.2023

EP01**LARGEST CASE SERIES OF FLEXIBLE BRONCHOSCOPY
REMOVAL OF ASPIRATED SCARF PINS**S.S Kalagiri¹, S. Ahmed², S. Tahura³, H.K. Gonuguntla¹, P.V. Belgundi¹¹Yashoda Hospitals, India²CairoUniversity, Egypt³Square Hospitals, Bangladesh**Background**

Foreign body aspiration (FBA) presents a constant risk in both pediatric and adult population. Most common aspirated foreign bodies are organic in nature. However, women who wear headscarf are at risk of aspirating the scarf pin while securing the veil when the scarf pin is held in the mouth. Traditionally rigid bronchoscopy was used to extract the aspirated scarf pin. However flexible bronchoscopy is being more commonly used for extraction. We present the largest multicenter experience with flexible bronchoscopy.

Methods

This was a retrospective observational study from previous records, from three centers of Egypt, Bangladesh and India. Patients in whom scarf pin was aspirated and extracted using flexible bronchoscopy were included. Demographic profile, symptoms and radiological findings were collected. Details of bronchoscope and accessories used for retrieval, anesthesia, location of pin, complications and failure rate were noted.

Results

105 patients were included in the study. Most common symptom was cough in 81 patients (77.14%). 93 (88.57%) patients remembered aspiration event. 79 (76%) patients underwent bronchoscopy within 7 days of aspiration. Bronchoscopy was done under local anesthesia in 60 (57.1%) patients and general anesthesia in 45 (42.8%) patients. Scarf pin was found in Right [44 (41.9%)] and Left bronchi [44 (41.9%)] equally, which is a peculiar finding in the study. Multiple scarf pins were observed in 4 cases. Of 105 patients, 11 patients had unsuccessful rigid bronchoscopy retrieval and subsequently all underwent successful flexible bronchoscopy retrieval. Balloon and Forceps were used for retrieval. No major complications were observed. Most common complication was slippage of pin during retrieval.

Conclusion

Rigid bronchoscopy is considered to be a standard procedure for retrieval of most foreign bodies, including scarf pin. But in this study, flexible bronchoscopy has been successful in scarf pin retrieval and shown to be a good alternative to rigid bronchoscopy.

TO COMPARE THE EFFICACY AND DIAGNOSTIC YIELD OF BRONCHOSCOPIC BIOPSY USING CONVENTIONAL FORCEPS VERSUS 1.1MM CRYOPROBE IN CENTRAL AIRWAY LESION

R. Rabari¹, T. Joseph², A.G. Vallonthaiel³

^{1,2}Department of Pulmonary Medicine Amrita Institute of Medical science, Kochi

³Department of Pathology Amrita Institute of Medical science, Kochi

Background

This study aimed to evaluate the efficacy and diagnostic yield of a bronchoscopic biopsy using conventional forceps versus 1.1mm flexible cryoprobe in central airway lesion.

Methods

All Patients with suspected central airway lesions were enrolled. Conventional Forceps biopsies and 1.1mm flexible cryo probe biopsy were done in the same patient and same setting under conscious sedation. Primary objective was to compare diagnostic yield of both biopsy samples. Secondary objective were to compare size, number of specimen required to get adequate diagnosis, tissue architecture and complications.

Results

In this study we enrolled total 30 patients with central airway lesions. Diagnostic yield of 1.1mm flexible cryo probe biopsy was significantly higher than forceps biopsy 96.66% versus 78%. ($p = 0.001$). Size of Samples obtained was larger in cryobiopsy in compare to forceps biopsy. Tissue architecture was preserved better in cryobiopsy sample in compare to forceps biopsy sample. Mild bleeding was reported in both techniques with no statistical significance ($p = 0.063$, $p = 0.5$).

Conclusion

1.1mm cryoprobe biopsy represents a safe and effective tool to obtain adequate tissue samples of a good quality with higher diagnostic yield in comparison to standard forceps samples in central airway lesions. To achieve the diagnostic yield in central airway lesion one 1.1mm cryobiopsy sample was statically significant in comparison to three conventional forceps biopsies. And 1.1mm flexible cryoprobe biopsy also reduce the total duration of bronchoscopic procedure in compare to conventional Forceps biopsies.

PREDICTIVE RISK FACTORS FOR PNEUMOTHORAX AFTER FLUOROSCOPIC GUIDED TRANSBRONCHIAL LUNG BIOPSY

B.H. Ng¹, H. J. Low¹, N.N.N. Abeed¹, M.F.M. Jailaini¹, A.A Azmel¹, C.I. Soo², M.F.A. Hamid¹, A.B. Yu-Lin¹

¹Respiratory Unit, Department of Medicine, Hospital Canselor Tuanku Muhriz, Faculty of Medicine, Universiti Kebangsaan Malaysia

² Division of Respiratory Medicine, Department of Medicine, Faculty of Medicine, University of Malaya Medical Center

Background

The pulmonologist routinely performs fluoroscopic guided transbronchial lung biopsy (FG-TBLB) via bronchoscopy to obtain the tissue diagnosis. Knowing the risk factor of FG-TBLB-related pneumothorax might guide the operator in preparing for this complication.

Methods

We retrospectively analysed data from 157 patients who underwent FG-TBLB. The primary outcome was procedure-related pneumothorax. We evaluated the following risk factors for pneumothorax after FG-TBLB: patient characteristics, location of biopsy, number of biopsies and computed tomography pattern. Univariate and multivariate logistic regression analyses were performed.

Results

One-hundred fifty-seven patients were included (mean age 57.9±16.2 years; 60.5% male). The most common location for FG-TBLB was the right upper lobe (45, 28.7%), followed by the right lower lobe (42, 26.8%), left upper lobe (27, 17.2%), left lower lobe (21, 13.4%), right middle lobe (14, 8.9%) and lingula (8, 5.1%). The mean (±SD) of the biopsy sample taken was 6.7 (2.1). Radiographic evidence of pneumothorax was reported in 12 (7.6%) patients. Eleven (91.7%) pneumothorax required intercostal chest tube intervention (mean air leak time: 5.7 days). One has persistent air leak and requires autologous blood patch pleurodesis. None of the patients experienced pneumothorax recurrence. With univariate analysis, factors independently predisposed to pneumothorax were male gender and upper lobes location of the biopsy. In the multivariable analysis, the risk of pneumothorax was significantly higher for biopsies obtained from the upper lobes (OR 0.120; 95% CI 0.015 – 0.963; p = 0.046).

Conclusion

The overall rate of pneumothorax is low. Clinicians should be aware of the increased risk of pneumothorax when performing the FG-TBLB in the upper pulmonary lobes. The procedure should be adequately planned and prepared to manage the possibility of pneumothorax post-biopsy.

THE EFFICACY OF BRONCHIAL WASHING AND BRONCHOALVEOLAR LAVAGE IN SUSPECTED PULMONARY TUBERCULOSIS IN ASIAN POPULATION

S. Zulkifli¹, A. Mokhtar¹, U. N. Daut¹, M. Z. Bidin¹

¹Department of Medical, Hospital Sultan Abdul Aziz Shah, Serdang

Background

A controversy of superiority of methods, bronchoalveolar lavage (BAL) and bronchial washing (BW) in diagnosis of Tuberculosis (TB) is due to limited data and study. Hence, the study aims to investigate the efficacy of bronchoscopy methods in suspected Pulmonary Tuberculosis (TB).

Methods

A retrospective study with a total of 70 patients were screened and collected from June 2022 until December 2022 Outcome is defined as a safety profile (hypoxia, perforation, bleeding), TB yield (Mycobacterium TB culture, TB direct smear, TB Gene Xpert®, TB PCR) and risk associated (demographic, comorbidity, clinical symptoms). $p < 0.05$ is determine as significance.

Results

A total of 16 patients identified as confirmed TB. The study reported no significant difference in BAL and BW in terms of TB yield and safety profile. A multivariate analysis was done in multiple models of analysis (sociodemographic, comorbidity, clinical symptoms, TB yield and safety profile) with bronchoscopy technique, however there were no significant relation were reported.

Conclusion

Study shows no difference in outcome with method of bronchoscopy. However, multifactorial cause that leads to the outcome should be considered i.e., operator bias, laboratory management, handling and technique. Therefore, a multicenter with randomization study should be done for better outcome.

BRONCHOSCOPIC MANAGEMENT OF PEDIATRIC BENIGN TRACHEO-BRONCHIAL STENOSIS: A RETROSPECTIVE STUDY

S. Gupta¹, M. Pilaniya¹, N. Agarwal¹, P. Jain², S. Jain³

¹Resident, Department of Pulmonology, Ramkrishna Care Hospital, Raipur (CG) INDIA

²Head of Department of Pediatrics, Ramkrishna Care Hospital, Raipur (CG) INDIA

³ Head of Department of Pulmonology, Ramkrishna Care Hospital, Raipur (CG) INDIA

Background

Pediatric benign tracheo-bronchial stenosis are relatively rare, but are associated with significant morbidity and mortality. The etiology of benign tracheo-bronchial stenosis includes congenital, post-intubation, post-tracheostomy, trauma, inhalational injury, tuberculosis and other infections, autoimmune disorders, inflammatory airway diseases, chronic impacted foreign bodies etc. Many of these cases may require surgical treatment. However, some of them can be effectively managed by bronchoscopic treatment. Bronchoscopic management of adult tracheo-bronchial stenosis has been well described in the literature. However, there are very few publications regarding bronchoscopic management of pediatric tracheo-bronchial stenosis. Hence, we are presenting our experience of bronchoscopic management of these cases.

Methods

This is a retrospective study at a tertiary care hospital in India. Total 58 patients (of all age groups) with benign tracheo-bronchial stenosis due to various causes were treated in our department between 1st January 2018 to 31st December 2022. Out of these, 9 patients were of pediatric age group. The age of the patients in this subgroup (in our study) was between 3.5 to 15 years, of which there were 7 males and 2 females.

Among the pediatric cases, 6 patients were treated using both rigid and flexible bronchoscopes while 3 patients were treated using only flexible bronchoscope. We used electrocautery, holmium laser, CRE balloons, vascular balloons, bronchoscopic forceps and the bevel of the rigid bronchoscope for dilatation of tracheal and/or bronchial stenosis. We were able to successfully complete the procedure in all cases.

Results

All patients with pediatric tracheo-bronchial stenosis could be successfully treated by bronchoscopic interventions. No major complications were seen during or post-procedure (except transient hypoxia and minor bleeding).

Conclusion

Our study suggests that pediatric trachea-bronchial stenosis can be effectively managed in many cases by bronchoscopic interventions. Larger studies are needed to define its definitive role in these patients.