Vaccines R & D 2021: Foreign body aspiration: An important cause of medley acute and chronic respiratory symptoms in children and its management by flexible bronchoscopy

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Abstract

Introduction: Foreign body (FB) aspiration in airway is a common occurrence in pediatric age group, need prompt recognition and management. However, it is not always diagnosed (especially in radiolucent FB) due to non-specific symptoms of varying severity. Often the symptoms are subtle and mistaken for other more common conditions like pneumonia and asthma and do not respond as expected to standard therapy and present a diagnostic challenge. Rigid bronchoscopy still remains the gold standard in Bangladesh to remove airway FBs. Aim: The main aim of this study was to emphasize the importance of considering airway foreign body as a cause of acute and chronic respiratory symptoms in children and to outline the clinical evidences of the utility and feasibility of flexible bronchoscopy for management of airway FB in children. Methods: This prospective study was performed on children (aged six months to 16 year) having acute or recurrent or long standing, non-resolving or partially resolving respiratory complaints who underwent flexible bronchoscopy for suspected FB from July 2018 to July 2019 in a tertiary care hospital in Bangladesh. History, clinical, radiological, bronchoscopic findings and immediate effect after bronchoscopy were analyzed. Results: The results indicated that among total 32 children, only 25% (n=8) had definite history of FB aspiration. The most frequent symptom was paroxysmal cough (72.7%) followed by wheezing, stridor and recurrent and persistent pneumonia. FB was found in 47% (n=15) children and removed successfully by Dormia basket in nine children, four by rat-tooth forceps and two by cryo probe. The most common (n=8) FB was peanut. Others are pin, metallic clip, plastic bead of Tasbih, filament of pencil torch light, custard apple seed, pea pulse, plastic safety ware joint. Thick mucus plugs were found in four children. Respiratory symptoms improved after removal of foreign bodies in all cases. Respiratory symptoms improved after removal of foreign bodies in all cases. During procedure, transient hypoxia developed in three children which were alleviated by temporary cessation of the procedure. Conclusions: The possibility of foreign body aspiration should be considered in any child who present with acute or persistent and recurrent respiratory symptoms. And flexible bronchoscopy documented a crucial diagnostic and safe therapeutic tool for foreign body management in pediatric age group.

Biography

Sarabon Tahura is a Medical graduate (MBBS) from Mymensing Medical College under Dhaka University and has obtained her professional degree FCPS (Paediatrics) from Bangladesh College of Physicians and Surgeon (BCPS). Afterwards, she has completed fellowship in Paediatric Intervention Pulmonology from Qilu Children Hospital under Shangdong University, China and training from All India Institute of Medical Science (AIIMS). She is the Associate Professor of Pediatric Respiratory Medicine and the 1st Pediatric Interventional Pulmonologist of Bangladesh. She is experienced in teaching and conducting Post-graduation examinations of Pediatrics in Bangladesh. She has been published many articles under her name in different national and international journals and has been serving as an Editorial Board Member of repute.