Review of Bronchoscopy Results of Paediatric Patients with Persistent Stridor and Refractory Wheezing

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Abstract

Objective: To review the results of bronchoscopy of patients presenting with persistent stridor and refractory wheezing and to find out the diagnostic yield and complication rate of this procedure. Methods: It is a retrospective review. Information of the individual patients, findings, complications and laboratory results of the bronchoscopies were retrieved from the log book and hospital records for analysis. Results: Forty-four patient records were analysed. All patients presented with persistent stridor (n=32) had pathologies identified and 6 out of 12 patients (50%) with persistent or recurrent wheezing had lesions detected in their airways by bronchoscopy. Patients with underlying diseases were more likely to have abnormalities found (p<0.05). There was no fatalities in our series. Transient desaturation was the most common complication and was encountered in 19 patients. Patients less than 1 year had a significantly higher risk of desaturation (p=0.006, OR=5.95). Conclusions: Our study results showed that bronchoscopy is a safe and useful clinical tool for investigation of patients with persistent stridor or refractory wheezing. We recommend routine administration of supplementary oxygen to young patients during bronchoscopy to prevent transient desaturation.

Key words Flexible bronchoscopy; Stridor; Underlying disease; Wheezing

Introduction

Flexible bronchoscopy (FB) has been widely used for the investigation of paediatric respiratory disease since it first became available for paediatric use in 1978. There are a lot of clinical indications for FB in paediatric patients. Stridor and wheezing are among the two commonest causes for performing FB. FB has been well recognised for its diagnostic effectiveness when carried out under appropriate indications. The service of FB has been introduced in our department since 1998. We are interested to find out the diagnostic yield of FB under our hand when compared with other series. Therefore, we decided to review the bronchoscopy results of our patients who presented with persistent stridor and refractory wheezing. We would also like to know from our results the safety of this clinical procedure and its contribution to the clinical management of this group of patients.

Methods and Statistics

All information of bronchoscopies including demography, indications, drugs used for sedation, endoscopic findings, bronchoalveolar lavage results and complications were recorded in a log book. We included in our study all patients of whom the indications for bronchoscopy undertaken between 1st July of 1998 to 31st December of 2002 were either 1) persistent stridor or 2) persistent or recurrent wheezing for greater than 1 month with poor response to inhaled or systemic corticosteroid. Data of these patients were retrieved from the log book and hospital records for further analysis.