POST-BRONCHOSCOPY LARYNGEAL OBSTRUCTION BY ENLARGED (KISSING) TONSILS – A Case Report

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SUMMARY

We present a case of post bronchoscopy airway obstruction due to massively enlarged (kissing) tonsils, along with its management and review of literature.

Keywords: Foreign body: Tracheo-bronchial; Rigid Bronchoscopy complication: Airway obstruction, Re-intubation; Enlarged “kissing” tonsils.

Introduction

In the immediate post-operative period, airway obstruction necessitating reintubation is rare, and is found to have an incidence of 0.17-19% according to two large series which examined more than 24,000 post anaesthesia care unit admissions.1-2 Postoperative airway obstruction may be due to anaesthesia related factors such as residual anesthetic or sedative effect, inadequate antagonism of neuromuscular block or inappropriate fluid management,3 secondary to several physical factors such as compression due to haematoma,4 bilateral recurrent laryngeal nerve palsies,5 massive tongue swelling,6 paradoxical vocal cord motion7 and obstruction by a mucous cast.8

Pediatric patients may present as medical emergencies other than upper respiratory tract infection and may need consideration and management of respiratory tract infection along with the concomitant emergency task to decrease morbidity.

We report a case of life threatening airway obstruction by inflamed massive sized tonsils following bronchoscopy foreign body removal.

Case report

An 18 month old female child was admitted for removal of an unknown inhaled tracheo-bronchial foreign body with a history of six hours inhalation. Physical examination was normal except for complaint of cold and dry cough since the last five days.

Intravenous access was secured on dorsum of left hand. Premedication was done with inj. atropine 0.2 mg. and hydrocortisone 30 mg I.V. along with oxygenation by masks using Jackson-Rees breathing circuit. Anaesthesia was induced with thiopentone sodium 5 mgkg⁻¹ and suxamethonium hydrochloride 1 mgkg⁻¹. The child was monitored with a pulse oximeter, non-invasive blood pressure monitoring and a precordial stethoscope. A rigid Karl-Storz bronchoscope size 3.5 (OD 5.7 mm, 20 cm length) was introduced without any difficulty and the surgeon removed a piece of groundnut from the right bronchus. Oxygenation was done by venturi device through the side arm of the bronchoscope and intermittent doses of succinylcholine were given to maintain anaesthesia. Repeat bronchoscopy was done to evaluate the tracheo-bronchial tree and thorough suction was done. However the ENT surgeon, at this juncture, did not forewarn us of any impending catastrophe that could result due to enlarged tonsils.

Immediately after removal of bronchoscope, the child made ineffective respiratory efforts with rapidly developing cyanosis; and clinically airway obstruction was suspected. Attempt at relieving the obstruction by airway maneuvers and insertion of an oropharyngeal airway, proved unsuccessful with progressive cyanosis. SpO₂ at this time was 84%. Immediately direct laryngoscopy was done which revealed bilateral massive enlarged tonsils (kissing tonsils) touching each other in the mid line, which occluded the laryngeal inlet. The trachea was intubated with size 4.5 mm oral uncuffed endotracheal tube to relieve airway obstruction, and connected to the Jackson-Rees breathing circuit. Inj. Hydrocortisone hemisuccinate 30 mg was repeated and the child was shifted to the recovery room when SpO₂ was recorded as 97%. Extubation was done after complete recovery of reflexes and muscle power. Consequently postoperative recovery was uneventful.

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Discussion

A review of literature revealed no previous case reports of total airway passage obstruction by enlarged tonsils after rigid bronchoscopy in the post-procedure period. Corticosteroids have been used before extubation to decrease the likelihood of stridor, and all patients should be given humidified oxygen after extubation/removal of bronchoscope.9

The above case thus highlights such incidences where instrumentation like rigid bronchoscopy in patients with upper respiratory tract infection e.g. inflamed massive enlarged tonsils, may exaggerate the condition and must forewarn the anaesthesiologist about airway maintenance which may be life threatening. Extubation in these children must be done with due consideration of airway potency.

“The golden rule; if there is any doubt, leave the trachea intubated”.

References


BOOK REVIEW

“OBSTETRIC ANESTHESIA”

Edited by Dr. Sunanda Gupta

An academic work on contemporary medicine is an inherently risky experience. It is expected to take the reader beyond the already available information in the same field. To discern reasonable expectations and prescribe innovative solutions to cope with recurring crisis and offer theoretical insights to the readers.

By these yardsticks the collection under review is enriched by those contributors whose academic qualifications are excellent. Besides the editor have shown good analytical skills by organising the chapters in a very conceptual formula.

For question often asked by the students of anesthesia and practicing anaesthesiologists about the quick reference book, this may be the answer. The book provides the required information and also the vast bibliography offered by various authors will help the students for preparing the dissertations.

The collection is somewhat weakened by repetition which makes the volume a bit bulky. I would have loved to read the major problems, we may occasionally come across like Cesarean hysterectomy as a major perioperative problem.

The chapter on human immunodeficiency syndrome and pregnancy whose magnitude is increasing beyond expectations gives the reader much needed information in management during normal delivery or operative delivery.

Dr. Sunanda Gupta for her attempt to compile the book in a organized manner should be congratulated. I certainly will have this book in my collection.

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A case of a left mainstem obstruction managed by interventional bronchology is described in the present study. Repeated bronchial stenosis was observed even following numerous treatment procedures, however, administration of isoniazid resulted in the inhibition of hypertrophic scar formation and prevention of repeated stenosis. The suppressive effect of isoniazid on granulation formation and further observations are reported.

Case report. A 36-year-old male was admitted to Daping Hospital (Chongqing, China) following a workplace accident. A chest radiograph exhibited multiple rib fractures and lung contusions. Repeat flexible bronchoscopy was performed one week and one month following oral isoniazid administration (Fig. 3) Obstruction is usually the most common presenting symptom when polypoid granulomatous lesions involve the nasal septum and the inferior turbinate. Fergie and colleagues retrospectively reviewed eight patients with nasal sarcoidosis and found that epiphora was present in 4 patients.

The symptoms of nasal obstruction and chronic sinusitis often occur in patients concomitantly. The most common symptoms associated with sarcoidosis of the sinuses are recurrent infections, epistaxis, periorbital tenderness, post-nasal drip and headache. Patients with sarcoidosis of the sinuses usually have involvement of multiple organ systems. Sarcoidal lesions in the sinus mucosa are generally similar to those found in the nasal mucosa. Exercise-induced laryngeal obstruction (EILO) is a transient, reversible narrowing of the larynx that occurs during high intensity exercise. This acts to impair airflow and cause shortness of breath, stridor and often discomfort in the throat and upper chest. EILO is a very common cause of breathing difficulties in young athletic individuals but is often misdiagnosed as asthma or exercise-induced bronchoconstriction.