OR-021

Office based non-invasive diagnostic technique for acquired tracheoesophageal fistula

Nesha Rajendram[1], Muhammad Ariff Sobani[2], Noor Shairah Mat Barhan[2], Masaany Mansor[1]

[1]Department of Otorhinolaryngology, Hospital UITM, Sungai Buloh Campus, [2]Department of Otorhinolaryngology, Hospital UITM, Puncak Alam Campus

ABSTRACT

Summary: This is a case report of a new, less-invasive, office-based technique in diagnosing a tracheoesophageal fistula (TOF) utilizing a nasogastric tube and methylene blue dye. This nasogastric tube methylene blue technique is able to localize and delineate TOF precisely despite being a simple inexpensive clinic procedure that is comfortable for the patient. With the nasogastric tube in-situ and functioning, a flexible nasopharyngolaryngoscope is introduced until the laryngeal structures. The nasogastric tube is slowly withdrawn until only the tip remains just under the hypopharynx. 20 mls of saline mixed with methylene blue is then passed through the nasogastric tube slowly to ensure there will be no spillage of the dye around the hypopharyngeal and the laryngeal structures. Subsequently, the flexible nasolaryngoscope is then passed through the tracheostoma site and manoeuvred to examine the subglottic and trachea region, to visualise for any dye leak which could demarcate clearly of any TOF. Any leakage of dye could be visualised directly and the location of TOF could be delineated. Tracheoesophageal fistula (TOF) although rare is difficult to diagnose. The nasogastric tube methylene blue technique we describe above spares patients from general anaesthesia. It is a simple office-based procedure that can diagnose TOF accurately. This non-invasive technique is practical, utilizes instruments in the clinic itself and is comfortable for the patient, most importantly it's inexpensive.

OR-022

Complete tracheal ring - Diagnostic dilemma of hypercarbia in ventilated children

Siti Hajar Noordiana[1], Shifa Zulkifli[2], Nor Hafizah Saifuddin[3], Carren The[3]

[1]Department of Otorhinolaryngology, Head and Neck Surgery, Faculty of Medicine, Universiti, Kebangsaan Malaysia, [2]Department of Otorhinolaryngology, Women and Children Hospital Kuala Lumpur, [3]Department of Otorhinolaryngology, Hospital Sungai Buloh.

ABSTRACT

Summary: Complete tracheal rings are a rare pathology that affects 1 in 100,000 live births. It is a rare isolated tracheal or tracheobronchial anomaly caused by abnormal cartilage growth that forms a complete ring and causes airway stenosis. Symptomatic newborns with complete tracheal rings frequently show up in a critical condition, indicating a mortality rate of 70% to 100%. Some of these anomalies might be identified after unsuccessful intubation attempts or failure to wean the patient from ventilation. We report a rare case of complete tracheal ring in an infant, which presented with history of fever and upper respiratory tract infection symptoms and failure to thrive, which progress into respiratory distress and requiring intubation. It was a difficult intubation with multiple attempts, and finally when managed to intubate; only a small endotracheal tube were able to pass through. Despite that, patient appeared to have obstructive breathing even on ventilator. Patient was ventilated with high setting, but there was persistent hypercarbia in blood gas investigation, which raised suspicion of foreign body inhalation but history and chest X-ray was not suggestive. Subsequently, flexible endoscopic was performed which revealed a long segment of complete tracheal ring. However, the child succumbed to death before we were able to intervene. In this case report, we discussed about the diagnostic dilemma of a child with multiple attempts of intubation and requiring high setting of ventilator. In a child with recurrent episodes of upper respiratory tract infection, noisy breathing and failure to thrive, it is crucial to suspect congenital tracheal stenosis or anomalies as early diagnosis is critical to allow for monitoring and multi-disciplinary planning for intervention.