A Novel Bedside Diagnostic Technique for Acquired Tracheoesophageal Fistula

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Acquired tracheoesophageal fistula is a rare and challenging medical dilemma. In general, tracheoesophageal fistula (TOF) is diagnosed by subjecting a patient to imaging such as barium swallow or computed tomography of the neck and thorax. The patient may need a diagnostic bronchoscopy under general anaesthesia and flexible oesophagoscopy. We report three cases of suspected TOF diagnosed utilising a new, novel, minimally invasive, an office-based procedure in a bedside setting. TOF is difficult to diagnose. Our technique is practical, utilizes instruments in the clinic itself, is comfortable for the patient, and is inexpensive.

The cases include a post tracheostomised patient who was suspected to be complicated with TOF, a patient who underwent OGDS for investigation of dysphagia and odynophagia with an incidental finding of oesophageal fistula, and a patient who underwent anterior cervical corpectomy and fusion with an open tracheostomy, who was suspected to have an oesophageal fistula post neck surgery.

The technique used a flexible nasopharyngolaryngoscope (FNPLS), and a nasogastric tube instilled with methylene blue and local anaesthesia into the larynx and trachea in an awake patient. The detailed step-by-step procedure was described. This technique is simple and safe. It eliminates the need to subject patients to general anaesthesia or contrasted imaging in diagnosing TOF.

Keywords: tracheoesophageal fistula, oesophageal fistula; methylene blue; office-based procedure

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