

Traumatic Pharyngeal Pseudodiverticulum Mimicking Esophageal Atresia

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ABSTRACT

Obstruction of passage of a catheter through esophagus in a newborn is mostly diagnosed as esophageal atresia (EA) with or without tracheo esophageal fistula (TEF). Rarely a traumatic instrumentation may produce pharyngeal or upper esophageal perforation and attempt at passage of a catheter may produce a false passage submucosally called pseudodiverticulum. Here it is present the case of a extremely premature(28wk) and low birth weight(950gms) newborn with traumatic laceration and pharyngeal pseudodiverticulum mimicking EA. The authors discuss the diagnostic characteristics and management of such a situation. [*Indian J Pediatr* 2007; 74 (2) : 195-196] E-mail- kamalesh_pal@yahoo.com; kamaleshpal@gmail.com.

Key words : Pharyngeal pseudodiverticulum; Trauma

Obstruction of passage of a catheter through the esophagus is mostly due to esophageal atresia (EA) with or without tracheoesophageal fistula (TEF). However, occasionally laryngotracheoesophageal cleft (LTEC) , pharyngeal/esophageal perforation may mimic as EA. The authors present a case of traumatic pharyngeal laceration with pseudodiverticulum in a newborn mimicking as EA.

CASE REPORT

A preterm (28 weeks gestation) female baby weighing 950 gm, born by normal vaginal delivery to a primigravida mother (25 years age), presented with respiratory distress (Apgar score 3,6 & 7 at1, 5 and 10 mins) and cyanosis. There was no history of polyhydramnios, however, there was history of prolonged labour. Baby was resuscitated with intubation and was admitted to NICU. Baby regained activity, became pink with bluish discoloration of upper chest, neck and face. Two attempts at passing nasogastric tube failed. There was blood stained sialorrhoea, attempt to pass a number 8Fr infant feeding tube per orally got stuck at 13cms from the lip margin and the catheter tip was stained with fresh blood. Radiograph (Fig. 1) showed the catheter at T₇ level and the catheter course was seen deviated from the midline towards right.

Abdomen showed normal gas pattern. Laryngoscopic examination revealed pooling of blood and saliva in the oropharynx and a 1.5 cms long transverse laceration of the posterior pharyngeal wall through which the feeding tube was entering into a blind prevertebral submucosal track forming a pseudodiverticulum. Another catheter was passed above this tear into the esophagus under vision which went easily into the stomach (Fig. 2). The previous catheter into pharyngeal pseudodiverticulum was removed. Patient was put on systemic antibiotics and was fed through the OG tube. The pharyngeal tear healed spontaneously and after reassessment of the oropharynx, oral feeding was started after 6 wks due to prematurity . Baby had normal swallowing reflex and did tolerate feeding.



Fig. 1.

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Fig. 2.

DISCUSSION

Drizzling of saliva and nonpassage of naso/oro gastric tube in a newborn usually points towards esophageal obstruction due to EA. Usually the catheter gets stuck at 10cm from the lip margin. Radiograph in EA & TEF shows catheter tip at around T₄ vertebra and a radiolucent pouch of upper esophagus is seen. Contrast study is optional. But obstruction of a catheter at variable distance i.e <10cm or >10 cm should prompt one to think of other possibilities such as LTEC or pharyngeal/upper esophageal perforation.^{1,3} Obstruction at the lower end of esophagus occurs in rare congenital esophageal stenosis.

Mixture of blood with saliva, presence of fresh blood at the tip of the catheter, a deviated course and abnormal depth of the catheter tip and any associated pneumothorax should alarm one to think of a traumatic injury of the pharynx or upper esophagus¹⁻³. Usually history of traumatic resuscitation and struggling during endotracheal intubation or NG/OG canulation supports the diagnosis. In authors case, the child was of extremely low birth weight, premature, product of difficult and prolonged labour with respiratory distress required

immediate intubation. She also had signs of upper body congestion which in addition to small sized anterior larynx would have made laryngoscopy difficult resulting in traumatic laceration of the pharynx. Blood tinged saliva, nonpassage of NGtube beyond 13cms length; presence of blood at the tip of the catheter prompted us to perform a laryngoscopic examination of the oropharynx. It revealed a pharyngeal tear of 1.5 cm and a pseudodiverticulum in the submucosal plane. Contrast study was not done to avoid unnecessary mediastinitis. However, in esophageal perforation contrast study is always recommended. Esophagoscopy is contraindicated in these cases as it may actually increase the size of the perforation.

Mostly the mucosal tear heals spontaneously,³⁻⁵ however, risk of mediastinitis does exist. Babies should be monitored for leucocytosis, fever and swallowing abnormalities.

It is extremely important to recognize this entity during the evaluation of esophageal obstruction to avoid unnecessary thoracotomy due to misdiagnosis of TEF. In the absence of traumatic instrumentation a spontaneous perforation of esophagus⁴⁻⁶ should be considered.

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