

Case Report

H- type tracheoesophageal fistula in a child presenting as recurrent cough

Yash Pal Sharma¹, Shruti Sharma^{2*}, Sandeep Moudgil³

¹Department of Oto-Rhino-laryngology, Dr. Yashwant Singh Parmar Government Medical College, Nahan, Himachal Pradesh, India

²Department of Gastroenterology, Indira Gandhi Medical College, Shimla, Himachal Pradesh, India

³Department of Radiodiagnosis, Indira Gandhi Medical College, Shimla, Himachal Pradesh, India

Received: 03 June 2020

Accepted: 30 June 2020

***Correspondence:**

Dr. Shruti Sharma,

E-mail: shrutichail@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

H-type of tracheoesophageal fistula (TEF) is a rare congenital malformation presenting during infancy with choking and recurrent pneumonia. We present a case of H-type TEF with intermittent nonspecific cough, diagnosed on oesophagogastroscope and upper gastrointestinal contrast study. She was operated at the age of 30 months.

Keywords: Congenital, Oesophagogastroscope, Tracheo esophageal fistula

INTRODUCTION

H-type of tracheoesophageal fistula (TEF) is a rare congenital malformation occurring in about 4% of patients with esophageal atresia.¹ It usually presents with cough associated with cyanosis during feeding and recurrent pneumonia during infancy, however diagnosis may be delayed in presence of non-specific symptoms. We present a child with non-specific complaints, who was diagnosed and subsequently operated at the age of 30 months for H- type TEF.

CASE REPORT

Authors present a thirty-month-old female child, who presented to our out-patient-department with history of chronic cough and poor weight gain. The cough was intermittent with no specific persistent characteristic, present since early infancy. She had wet cough at times and at other times she had wheezing. On further probing the history, association of cough while feeding was found. She had very less episodes while sleeping. Before

presenting to us she had already received multiple courses of oral antibiotics, Proton pump inhibitors, oral steroids and cough syrups available over the counter. She was extremely choosy about the food that she ate, and the parents attributed this to her poor weight gain. She also had history of intermittent episodes of vomiting.

On general physical examination her weight was 8 kgs and length was 81 cms (both less than -3Z score) and her weight for height was at -2Z score for her sex and age. Her throat, ear and nose examination were unremarkable. On chest examination there were bilateral vesicular breath sounds. Her haemoglobin levels were 8.4 g/dl and her total leucocyte and platelet counts were normal. Her Kidney and Liver function tests were normal. X-ray chest also did not show any significant findings.

There was history of vomiting and reflux like episodes along with cough following feeding, so an oesophagogastroscope was done, which showed an intermittently opening fistulous tract in the middle esophagus (Figure 1). An upper gastrointestinal contrast

study (with gastrographin) further confirmed H- type TEF (Figure 2).

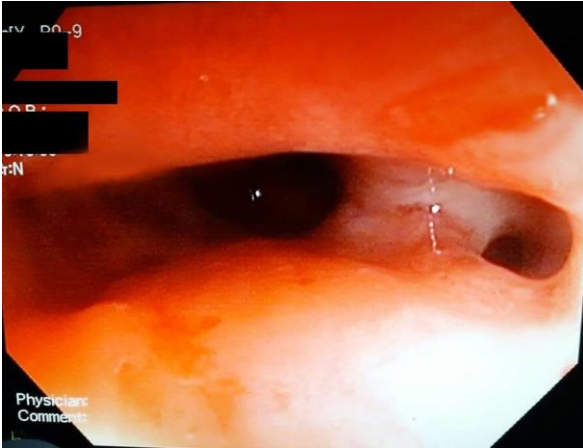


Figure 1: Intermittently opening fistulous tract in the middle esophagus.

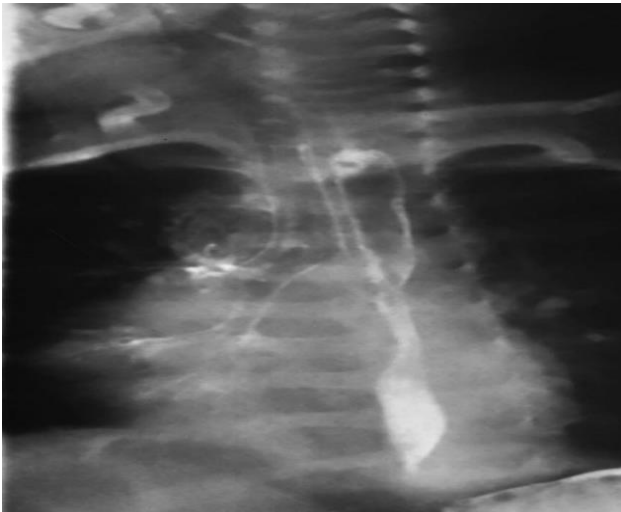


Figure 2: Upper gastrointestinal contrast study (with gastrographin) H- type TEF.

The other systemic examination including cardiac examination was within normal limits. The child was operated and fistulous tract was closed. On follow-up, after two months of surgery, her weight was 12 kgs and height was 82 cms. There was a complete resolution of cough.

DISCUSSION

Congenital H- type TEF usually present during neonatal period with average age of diagnosis being 15 days, and corrective surgery being 16 days.^{2,3} The classical symptoms associated with it are paroxysmal coughing,

choking or cyanotic spells with feeds, gaseous distension of abdomen and recurrent pneumonia.⁴ These children are known to have other congenital anomalies, with cardiac anomalies being most common (18%), followed by renal anomalies in 16% of the cases.³ This case is unique in many respects; other than the age at detection, the presentation of H type TEF with intermittent cough without episodes of choking or pneumonia has not been mentioned previously in literature. Upper GI contrast study along with oesophagogastrosocopy can be of great help in demonstrating the fistulous tract. Other investigations that are recommended are - CT scan of chest for assessing the pulmonary parenchyma, bronchoscopy and barium swallow (done in prone position). Postoperatively, gastro-esophageal reflux disease and recurrent laryngeal nerve paresis are the most common complications.⁵ The recurrence of fistulous tract has been seen in 3% of operated cases of TEF.³ Our child had complete resolution of symptoms with documented weight gain indicating the success of treatment.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. LaSalle AJ, Andrassy RJ, Steeg KV, Ratner I. Congenital tracheoesophageal fistula without esophageal atresia. J Thorac Cardiovasc Surg. 1979;78(4):583-8.
2. Kirk JME, Dicks-Mireaux C. Difficulties in diagnosis of congenital H-type tracheo-oesophageal fistulae. Clin Radiol. 1989;40(2):150-3.
3. Fallon SC, Langer JC, Peter SD, Tsao K, Kellagher CM, Lal DR, et al. Congenital H-type tracheoesophageal fistula: A multicenter review of outcomes in a rare disease. J Pediatr Surg. 2017;52(11):1711-4.
4. Helmsworth JA, Pryles CV. Congenital tracheoesophageal fistula without esophageal atresia. J Pediatr. 1951;38(5):610-7.
5. Zani A, Jamal L, Cobellis G, Wolinska JM, Fung S, Propst EJ, et al. Long-term outcomes following H-type tracheoesophageal fistula repair in infants. Pediatr Surg Int. 2017;33(2):187-90.

Cite this article as: Sharma YP, Sharma S, Moudgil S. H- type tracheoesophageal fistula in a child presenting as recurrent cough. Int J Contemp Pediatr 2020;7:1808-9.