

# Duodenocecal Fistula Developing after Hairpin Ingestion: A Case Report

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## Abstract

Foreign body ingestion is quite a common phenomenon in pediatric population and presents with a wide range of clinical manifestations. This is a case report of hair pin ingestion which presented in pediatric surgery emergency one year post ingestion with duodenocecal fistula and was managed with removal of hair pin and repair of duodenal and cecal fistula rents primarily.

**Key Words:** Foreign body, enteric fistula, duodenocecal.

## Introduction

Foreign body ingestion is quite a common phenomenon in Pediatric population. These Foreign bodies can be literally anything. They can be coins, sharp objects (needle, pin), bones (fish and chicken bone), metal object, food, seeds, plastic material, magnets, jewelry ring, and others in decreasing order of fre-

quency.<sup>3</sup> Most of these foreign bodies don't produce any symptoms and pass spontaneously. A few however can be symptomatic and can present as enteric fistulas, volvulus or even with intestinal perforations.

We are reporting a case of hair pin ingestion which presented to us one year post ingestion with enteric fistula and was managed with removal of hair pin and repair of duodenal and cecal fistula rents primarily.

## Case Report

A 5 year old boy presented to pediatric surgery department with complaint of recurrent episodes of colicky abdominal pain for last one year. It was associated with non-bilious vomiting and aggravated on taking meals. Parents gave history of accidental ingestion of hairpin by him while playing with his sister about one year back. There were no associated psychological issues. Examination revealed mild tenderness in epigastrium but rest of the examination was normal.

X-ray abdomen erect showed foreign body in the abdomen (Figure – 1). Mother of the patient had an X-ray of his son (done one year back) showing hairpin at the same position. It was decided to explore the patient after optimization and informed consent.

On exploration, no contamination was found in abdomen. Hair pin was causing a fistula between duodenum and cecum (Figure – 1 and 2) and after it's removal, cecal and duodenal rents were refreshed (Figure – 3 and 4) and repaired primarily. Duodenal rent was in second part of duodenum in anterior aspect and cecal perforation was in anterior part of cecum. Patient was kept NPO for 5 days and had an uneven recovery and was discharged when he started taking solids.

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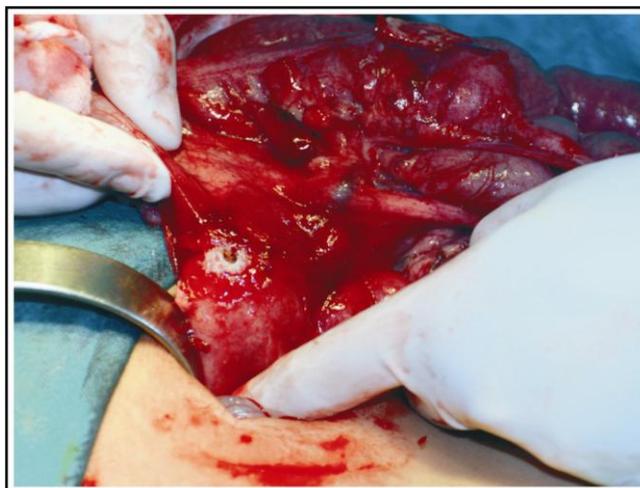
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All Authors have contributed in Study Design, Data Collection, Data Analysis, Data Interpretation, Manuscript Writing and Approval.



**Fig. 1:**



**Fig. 4:**



**Fig. 2:**



**Fig. 3:**

## Discussion

Foreign body ingestion is a common phenomenon in Pediatric population and most of these foreign bodies pass spontaneously, a few require endoscopic removal and only 1% of these foreign bodies can develop complications.<sup>1</sup> These complications can be in various forms. Most of documented enteric fistulae in medical literature are due to multiple magnet ingestion.<sup>1,2,4</sup> Enteric fistula due to Sharp foreign bodies are not reported frequently in literature though an aorto-gastric fistula has been documented in an elderly woman,<sup>5</sup> a perforated appendix has been reported in the malrotated gut due to tooth pick,<sup>6</sup> and peritonitis due to gut perforation had been reported in elderly people<sup>7</sup> but none of the cases reported ever had enteric fistula due to sharp foreign body like hairpin. Our case was unique in this aspect that patient developed enteric fistula following hairpin ingestion but didn't develop any signs of peritonitis or obstruction and remained undiagnosed for such a long period of time.

## Conclusion

Patients with ingestion of sharp foreign objects must be followed closely. If such objects don't pass spontaneously in a week, such patients must be explored to avoid complications.

## References

1. Padeiva F, Daniela C, Scarpa MG, Guida E, Dragovic D, Martellosi S. An asymptomatic multiple magnet in-

- gestion with Tansmesenteric enteroenteric fistula. *AP-SP J Case Rep.* 2014; 5 (2): 16.
2. Aikibi BT, Arnold M, Niekerk GV, Alexander A, Numanoglu A, Millar AJW. Magnetic Bead Toy Ingestion: uses and disuses in children. *Pediatr Surg Int.* 2013; 29 (7): 741-4.
  3. Lin MT, Yeung CY, Lee HC, Sheu JC, Wang NL, Lee KS. Management of foreign body ingestion in children: experience with 42 cases. *Acta Paediatr Taiwan.* 2003; 44 (5): 269–273.
  4. Tavarez MM, Saladino RA, Gaines BA, Manole MD. Prevalence, clinical features and management of pediatric magnetic foreign body ingestions. *J Emerg Med.* 2013; 44 (1): 261-8.
  5. Kabayashi F, Saiki M, Nakamura Y, Onohara T, Kishimoto Y, Harada S, et al. Aortogastric Fistula caused by a Foreign Body in a Hiatal Hernia. *Ann Thorac Surg.* 2016; 101 (5): 1976-8.
  6. Grassi V, Desiderio J, Cacurri A, Gemini A, Renzi C, Corsi A, et al. A rare case of perforation of the sub-hepatic appendix by a toothpick in a patient with intestinal malrotation: laparoscopic approach. *G Chir.* 2016; 37 (4): 158-61.
  7. Zmary KR, Davis JW, Ament EE, Dricks RC, Garry GE. This too shall pass: a study of ingested sharp foreign bodies. *J Trauma Acute Care Surg.* 2017; 82 (1): 150-5.