


Endoscopic Extraction of a Sewing Needle in a 12-Year-Old Child's Stomach: A Case Report and Literature Review

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Abstract

Foreign body ingestion is a frequent occurrence in pediatrics. The peak incidence is observed between 6 months and 6 years of age, while ingestions are less common in older children. Although the majority of swallowed foreign bodies are spontaneously eliminated through feces, sharp or pointed objects which have a high potential risk of perforation of a segment of the digestive tract must be removed urgently by endoscopy. We report the case of a sewing needle ingestion in an older child, which was extracted endoscopically five days after the incident.

Keywords

Foreign Body, Sewing Needle, Endoscopy, Case Report

1. Introduction

Foreign body (FB) ingestion is most often accidental in children and occurs in half of all cases before the age of 5 [1] [2]. In older children, ingestions are rare and occur mainly in cases of psychiatric disorders or suicidal behavior. Although the majority of swallowed FBs travel through the gastro-intestinal tract (GIT) and are spontaneously eliminated with feces, sharp or pointed objects, due to the potential risk of perforation of a segment of the digestive tract, are generally removed en-

doscopically within the first 24 hours, depending on their location. While most ingested FBs pass through the GIT without clinical manifestation or complication, 10% to 20% require endoscopic extraction, and less than 1% require surgical treatment due to a major complication (obstruction, perforation, abscess) [3]-[5]. The decision to remove a foreign body depends on its size, nature (toxic or non-toxic), characteristics (traumatic or non-traumatic), location (esophageal, gastric, or intestinal), and the symptoms presented by the child [4]-[6]. Esophagogastroduodenoscopy (EGD) alone can confirm the diagnosis of foreign body ingestion and allows for its removal in most cases. The main advantage of this procedure is the ability to perform a complete exploration of the upper GIT lumen [7]. Its disadvantages are related to the blind passage through the esophageal inlet and the difficulty of safely removing the FB through the working channel without causing mucosal injuries, depending on the type of FB [7] [8]. Coins and needles are the most frequently ingested objects [9]. We presently report the case of endoscopic needle extraction in a 12-year-old child based on the care Guidelines [10].

2. Case Study

A 12-year-old male child, a sixth-grade student residing in the Far North Region of Cameroon, was transferred for management of sewing needle ingestion. The patient told his parents that he had inadvertently swallowed a needle 24 hours earlier while playing with his friends. The patient reported no symptoms: no abdominal pain, no hypersalivation, no hematemesis, no melena, no rectal bleeding, no bowel disturbances, no vomiting, no fever, and no anorexia. The patient was then taken by his parents to a general practitioner 48 hours after ingestion, where the baseline clinical assessment revealed a blood pressure of 96/62 mmHg, a normal heart rate at 71 per minute and a normal respiratory rate at 19 per minute, the abdominal examination was normal, and an X-ray was performed, revealing a thin linear opacity approximately 30 mm long located in the umbilical region (**Figure 1**). The patient was later transferred to a second hospital, the Garoua Regional Hospital (North Region), for further management. On Day 4 post-ingestion, the patient underwent an abdominal CT scan, which revealed a linear hyperdense image approximately 42 mm long located in the second segment of the duodenum according to the radiologist (**Figure 2**). There was no sign of gastric perforation or intra-abdominal fluid effusion. Given the sharp nature of the FB and the lack of spontaneous passage, endoscopic extraction was decided. The patient was admitted to a third hospital, the Garoua General Hospital, for endoscopic needle extraction on Day 5 post-ingestion on general anesthesia. Before the endoscopic procedure, a written informed consent for the endoscopy and the publication was obtained from the patient's uncle. The endoscopy revealed a 40 mm long needle (**Figure 3**) in the antrum, specifically at the greater curvature opposite to the angulus and intramural (**Figure 4**). The needle was carefully extracted using biopsy forceps in two steps. The first step involved

removing the needle from the antral wall while monitoring for bleeding. The second step consisted of carefully guiding the FB out of GIT through the oral cavity. The biopsy forceps held the FB so that its sharp end was embedded within the forceps to prevent possible laceration of the mucosa. Further endoscopic examination revealed a normal-appearing esophagogastroduodenal mucosa, except for a small ecchymotic patch at the needle insertion site. The patient was followed up for 24 hours post-procedure in the pediatric ward where he received



Figure 1. Plain X-ray of the Abdomen showing a metal shadow in the umbilical region.

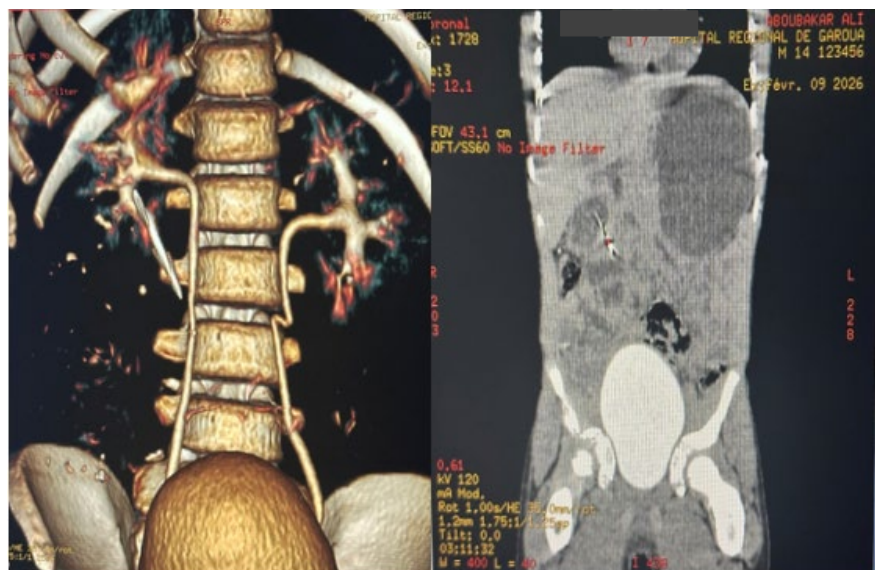


Figure 2. Abdominal CT-scan showing a linear hyperdense image at the right upper quadrant.

an intravenous injection of Omeprazole 20 mg. He was discharged on Omeprazole 20 mg, a tablet per day for 7 days and a Sucralfate suspension (1 g/10ml), 10 ml twice per day. The timeline of care is summarized in **Table 1**.

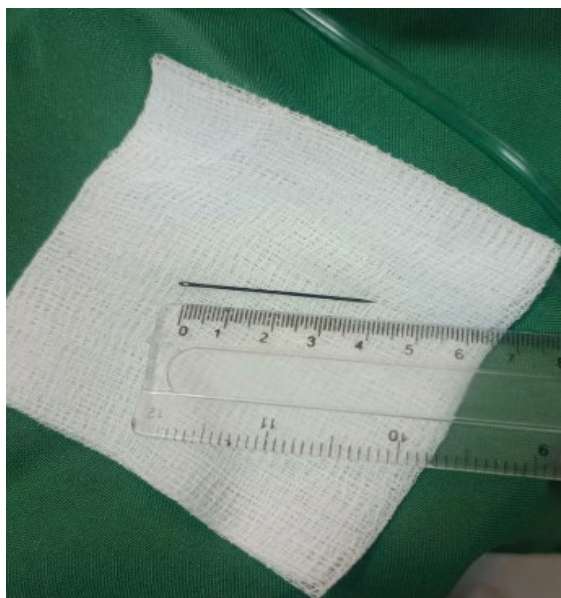


Figure 3. The sewing needle after extraction.

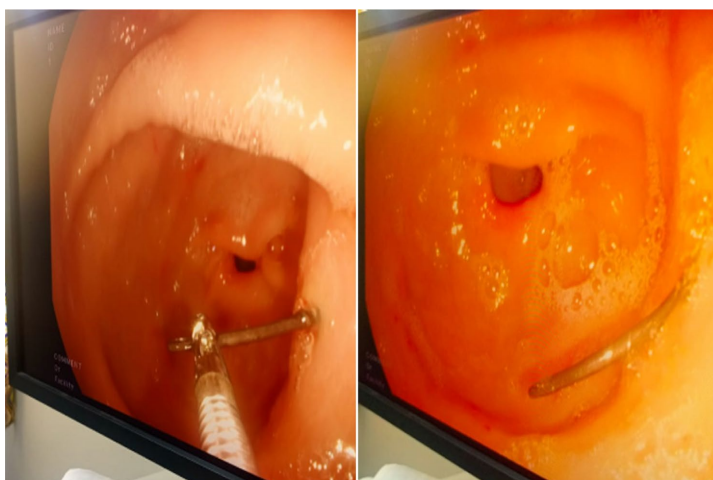


Figure 4. Endoscopic image of the needle in the antrum.

Table 1. Timeline of care from needle ingestion to hospital discharge.

Timing	Events	Site
Day 1	Needle ingestion	Home (Far North Region)
Day 3	First consultation	Mora District Hospital (Far North Region)
Day 4	Gastroenterology consultation and CT scan	Garoua Regional Hospital (North Region)
Day 5	Endoscopic procedure (Needle extraction)	Garoua General Hospital (North Region)
Day 6	Discharge from the hospital	-

3. Discussion

FB ingestion is rare in older children and occurs mainly in cases of psychiatric disorders or suicidal behavior. Our patient was 12 years old and reported that he had inadvertently swallowed the sewing needle while playing with his friends. Indeed, FB ingestion is a frequent accident in pediatrics [9]. The incidence is higher in children aged less than 10 years old, although in a study conducted in Israel in 2020, the mean age of the patients was 14.7 ± 4.1 years and 88% were girls, but the latter study was focused only on hijab pin ingestion [11] [12]. While the majority of ingested FBs pass through the digestive tract without clinical manifestation or complication, 10% to 20% require endoscopic removal due to a major complication (obstruction, perforation, appendicitis) [1] [2]. Our patient had no particular symptoms post-ingestion of the needle. Yogev *et al.* also found that 39.4% of patients were asymptomatic [12]. Although most swallowed FBs are eliminated spontaneously, sharp or pointed objects, due to a potential risk of perforation of a segment of the digestive tract, are generally removed endoscopically within the first 24 hours, depending on their location [13]. In our patient, the persistence of the needle in the digestive tract on day 5 post-ingestion and its sharpness led to the rapid performance of endoscopy for extraction. This delay in effective treatment can be explained by the fact that the patient presented no signs or symptoms post-ingestion prompting surgical management, and also by the lack of the necessary technical facilities in the patient's region of residence. The patient had to be transported to another region for effective affordable and less morbid treatment. Upper gastrointestinal endoscopy allowed for the extraction of a 40 mm long needle. There were no complications (such as perforations or bleeding) during the procedure, and the post-endoscopic outcome was favorable. Sometimes FB ingestion can be life-threatening or pose extraction problems [2] [14]. Earlier studies described accidental sewing needle swallowing but in symptomatic adult patients with early endoscopic needle extraction or laparoscopic surgery removal [15]-[17]. There was a discrepancy in the foreign-body location and size across the X-ray and CT in our study, possibly due to the difference in patient's positioning for these two imaging assessments, and the fact that there were two different radiologists' interpretation in different settings. Nonetheless, endoscopic assessment gave the right position of the FB and thus our case study emphasizes that it is essential that any suspected or confirmed case of FB ingestion undergo endoscopic workup, irrespective of the presence or absence of symptoms and no matter the time delay before consultation. And this endoscopy should be an emergency (performed in less than 2 hours) in timing if the FB is sharp-pointed according to the Italian Society of Pediatric Gastroenterology, Hepatology and Nutrition [18].

4. Conclusion

Needle ingestion is rare in older children. The sharp nature of the needle exposes them to complications that can rapidly become life-threatening. Although sometimes asymptomatic, the indication for endoscopic examination should not be de-

layed. It will allow for etiological diagnosis and management. The procedure can be performed without incident in the hands of a well-equipped and well-trained multidisciplinary team.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- [1] Litovitz, T.L., Klein-Schwartz, W., White, S., Cobaugh, D.J., Youniss, J., Omslaer, J.C., et al. (2001) 2000 Annual Report of the American Association of Poison Control Centers Toxic Exposure Surveillance System. *The American Journal of Emergency Medicine*, **19**, 337-395. <https://doi.org/10.1053/ajem.2001.25272>
- [2] Laugel, V., Beladdale, J., Escande, B. and Simeoni, U. (1999) L'ingestion accidentelle de pile bouton. *Archives de Pédiatrie*, **6**, 1231-1235.
- [3] Lheureux, P., Cavenaile, J., Cornil, A., Nouvelle, M., Sermon, F., Leduc, D., et al. (1996) Ingestion de corps étrangers: Attitude pratique. *Réanimation Urgences*, **5**, 637-653. [https://doi.org/10.1016/s1164-6756\(05\)80578-x](https://doi.org/10.1016/s1164-6756(05)80578-x)
- [4] Olives, J., Bellaïche, M. and Michaud, L. (2009) Corps étrangers digestifs chez l'enfant. *Archives de Pédiatrie*, **16**, 962-964. [https://doi.org/10.1016/s0929-693x\(09\)74219-8](https://doi.org/10.1016/s0929-693x(09)74219-8)
- [5] Michaud, L. (2006) L'endoscopie digestive interventionnelle chez l'enfant. *Archives de Pédiatrie*, **13**, 399-404. <https://doi.org/10.1016/j.arcped.2005.12.004>
- [6] Mas, E. and Olives, J.P. (2008) Toxic and Traumatic Injury of the Esophagus. In: Kleinman, R.E., Goulet, O., Mieli-Vergani, G., et al., Eds., *Pediatric Gastro-Intestinal Disease*, Vol. 1, BC Decker, 105-116.
- [7] Barros, A. and Dehesdin, D. (2000) Corps étrangers de l'oesophage. *EMC Oto-Rhino-Laryngo*, **20**, 835-840.
- [8] ASGE Standards of Practice Committee, et al. (2011) Management of Ingested Foreign Bodies and Food Impactions. *Gastrointestinal Endoscopy*, **73**, 1085-1091.
- [9] Lakdhar-Idrissi, M. and Hida, M. (2011) L'ingestion de corps étranger chez l'enfant: À propos de 105 cas. *Archives de Pédiatrie*, **18**, 856-862. <https://doi.org/10.1016/j.arcped.2011.05.007>
- [10] Gagnier, J.J., Kienle, G., Altman, D.G., Moher, D., Sox, H. and Riley, D. (2014) The CARE Guidelines: Consensus-Based Clinical Case Report Guideline Development. *Journal of Clinical Epidemiology*, **67**, 46-51. <https://doi.org/10.1016/j.jclinepi.2013.08.003>
- [11] Mahafza, T., Batieha, A., Suboh, M. and Khrais, T. (2002) Esophageal Foreign Bodies: A Jordanian Experience. *International Journal of Pediatric Otorhinolaryngology*, **64**, 225-227. [https://doi.org/10.1016/s0165-5876\(02\)00113-1](https://doi.org/10.1016/s0165-5876(02)00113-1)
- [12] Yogev, D., Mahameed, F., Gileles-Hillel, A., Millman, P., Davidovics, Z., Hashavya, S., et al. (2020) Hijab Pin Ingestions. *Pediatrics*, **145**, e20193472. <https://doi.org/10.1542/peds.2019-3472>
- [13] Ingestion de corps étrangers chez l'enfant, Société française d'endoscopie digestive. <https://www.sfed.org/article-abecedaire/ingestion-de-corps-etrange-chez-lenfant/>
- [14] Carcel, C., Pouyau, R., Heissat, S., Ayari-Khalfallah, S., Patat, A.-M. and Pulce, C. (2016) Ingestion d'une pile bouton par un enfant: Présentation d'un cas grave. *Toxicologie Analytique et Clinique*, **28**, 247. <https://doi.org/10.1016/j.toxac.2016.05.026>
- [15] Stojkovic, S., Bjelakovic, M., Stojkovic Lalosevic, M., Stulic, M., Pejic, N., Radivojevic,

- N., *et al.* (2023) Accidental Sewing Pin Ingestion by a Tailor: A Case Report and Literature Review. *Medicina*, **59**, 1566-1572. <https://doi.org/10.3390/medicina59091566>
- [16] Dal, F., Hatipoglu, E., Teksoz, S. and Ertem, M. (2018) Foreign Body: A Sewing Needle Migrating from the Gastrointestinal Tract to Pancreas. *Turkish Journal of Surgery*, **34**, 256-258. <https://doi.org/10.5152/turkjsurg.2017.3391>
- [17] Espin, D.S., Tufiño, J.F., Cevallos, J.M., Zumárraga, F., Orozco, V.E., Proaño, E.J., *et al.* (2021) A Needle in the Colon, the Risk of Ingested Foreign Objects: A Case Report. *Journal of Surgical Case Reports*, **2021**, rjab455. <https://doi.org/10.1093/jscr/rjab455>
- [18] Oliva, S., Romano, C., De Angelis, P., Isoldi, S., Mantegazza, C., Felici, E., *et al.* (2020) Foreign Body and Caustic Ingestions in Children: A Clinical Practice Guideline. *Digestive and Liver Disease*, **52**, 1266-1281. <https://doi.org/10.1016/j.dld.2020.07.016>