

An unusual foreign body within the appendix

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SUMMARY

Ingestion of foreign bodies consist a quite common problem in the pediatric age group. Usually most of them traverse the gastrointestinal tract without complications and only in rare cases they get trapped within the appendix. This case report describes the ingestion of the tip of a mercury thermometer by a six-year-old girl. An elective appendicectomy was performed in order to avoid further complications. To the best of our knowledge, this is the first reported case of the tip of a thermometer within the appendix.

KEY WORDS:

Foreign bodies, vermiform appendix, children

INTRODUCTION

Appendicitis due to foreign bodies is very rare.¹ However, if sharp or pointed objects get into the appendiceal lumen they carry a high risk for appendicitis or perforation. Most of these foreign bodies are radiopaque.²

CASE REPORT

This case report describes the ingestion of the tip of a mercury thermometer by a six-year-old girl. The patient presented with a history of ingestion of the metallic tip two months ago. The accident happened during an oral measurement when the thermometer broke and the tip was swallowed. The physical examination and the laboratory investigations were within normal limits and there were no clinical symptoms. Follow up with plain abdominal films demonstrated the foreign body in the right lower abdominal quadrant (fig.1). A surgical exploration through a small Lanz incision was performed and the foreign body was found to lie in the appendix. An appendicectomy was performed and the plain film of the surgical specimen confirmed the presence of the foreign body within the lumen of the appendix (fig.2a). The resemblance between the radiopaque foreign bodies in fig.1 and fig.2a is noted. The child was discharged the following day. On histopathologic examination the tip of the thermometer was embedded in the edge of the appendix with signs of intramucosal acute inflammation (fig.2b).

DISCUSSION

Most non-digestible foreign bodies traverse the digestive tract uneventfully and no surgical procedure is required. Rarely, with an estimated incidence of 0.005%, these objects get trapped within the vermiform appendix. The majority of

them are radiopaque. Mercury ingestion, inhalation or other injuries from glass mercury thermometers have been reported in the past.³ Mercury can be toxic in certain situations. Most oral and rectal thermometers contain about 0.5-0.6 grams of mercury. Mercury is not absorbed from healthy digestive tract in amounts that would cause toxic effects. Therefore, harmful effects would not be expected from swallowing the small amount of mercury from a broken thermometer. Toxicity usually results from inhalation of mercury vapors, which are absorbed through the alveolar membrane. To the best of our knowledge, this is the first reported case of the tip of a thermometer within the appendix. Further imaging with serial radiographs was not decided because the main site where the foreign body could lodge is the appendix, and in very rare cases the Meckel's diverticulum or the lumen of a



Fig. 1: Plain abdominal film: Foreign body in the right lower abdominal quadrant.

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Fig. 2a: Plain film of the surgical specimen confirms the presence of the foreign body within the lumen of the appendix

Fig. 2b: On histopathologic examination the tip of the thermometer was embedded in the edge of the appendix with signs of intramucosal acute inflammation

duplicated ileum. Ultrasound would have confirmed the location of the foreign body within the appendix. It is noteworthy the absence of any clinical symptoms while the histopathology report described inflammatory changes of the appendix. Our initial approach due to parent's choice was conservative with a two-month close follow up of our asymptomatic patient.⁴⁻⁵ We finally decided on an appendicectomy, in order to avoid further complications such as inflammation and perforation.

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