

Wooden toothpick partially embedded in the gastric antrum: a case report of an unusual finding in open access gastrointestinal endoscopy

Yaw A. Awuku^{1,3}, Nana A. Awuku², Janice I. Lovi³, Yvonne A. Nartey³ and Tabitha E. Abbew³

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¹Department of Medicine and Therapeutics, University of Cape Coast, Cape Coast, Ghana ²Department of Haematology, Cape Coast Teaching Hospital, P.O Box 1363, Cape Coast, Ghana ³Department of Medicine and Therapeutics, Cape Coast Teaching Hospital, P.O Box 1363, Cape Coast, Ghana

Corresponding author: Dr. Yaw Asante Awuku

E-mail: ppawuku@gmail.com

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SUMMARY

Ingested toothpick is an unusual occurrence in clinical practice. This is a medical emergency and all effort should be made to localize the toothpick and appropriate intervention instituted. We report a case of accidentally ingested toothpick with successful endoscopic removal in a case of a 24-year old male who presented for open access endoscopy with complaint of abdominal pain. During endoscopy a foreign body (sharp object) was seen partially embedded at the gastric antrum which was later identified as a wooden toothpick. Endoscopic removal was done using a Caesar grasping forceps (CGF-1-240). No complication was reported during and after the procedure. Ingested toothpick should be managed as an emergency in all cases and should be considered an important differential diagnosis in clients with complaint of abdominal pain especially in open access endoscopy.

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INTRODUCTION

Accidentally ingested toothpick is an uncommon event but when it happens may cause several gut injuries. These gut injuries in extreme cases may include perforation leading to peritonitis with associated high mortality.¹ Many cases of ingested toothpick occur in children and a significant number do not remember the event. Although localization of the toothpick in the gastrointestinal tract is an important step before intervention, it must be noted that investigations may fail to detect the toothpick.^{1,2}

Open-access endoscopy (OAE) is defined as the performance of endoscopic procedures requested by referring physicians without a previous clinic consultation.³ Usually the sequence is a referral to the gastroenterologist in a clinic setting for evaluation before the procedure, but this is not practical in our setting.

There is inadequate and a skewed distribution of gastrointestinal endoscopy (GE) services in Ghana such that without OAE many clients will be denied or has significant delays before having a GE done. Open access endoscopy comes with it the issues of appropriateness of referral, informed consent, diagnostic yield of the gas-

troenterologist and appropriate follow up schedule for clients.^{3,4} Despite the many challenges regarding OAE, patient's interest is the ultimate. We report a case of accidentally ingested toothpick referred as abdominal pain for open access endoscopy with successful endoscopic removal.

CASE REPORT

A 24-year old male presented to a private gastrointestinal endoscopy unit in Cape Coast the Central region of Ghana on account of 3 months epigastric pain usually made worse by food but with no relieving factors. Pre-endoscopy evaluation was done at our unit and included informed consent, the checking of vital signs and clinical enquiry to confirm the indication for the procedure.

During the endoscopy erosions at the right side of the antrum with a sharp elevation on the opposite side was observed. After a prolonged wash with water it revealed a sharp object later identified as a toothpick partially embedded on the left side of the antrum (Figure 1). Biopsy for *Helicobacter pylori* testing (Urease test) was also done with a positive urease test. The duodenum and oesophagus were normal.

Case Report

Further clinical enquiry from the client revealed that he had accidentally swallowed a wooden toothpick 4 month prior to this endoscopy.

A second endoscopy session was booked for the next day due to the unavailability of a suitable grasping forceps at the unit. On the next day, following the administration of intravenous midazolam and lignocaine oropharynx spray endoscopic removal was done using Caesar grasping forceps (CGF-1-240)



Figure 1 Image showing toothpick partially embedded in gastric antrum

Endoscopic retrieval of the toothpick was successful, and a chest X-ray done 24 hours after excluded any perforation. He was followed up at the clinic for two weeks with a repeat chest X-ray before discharge. *Helicobacter pylori* eradication was also done because of the positive urease test. No complication was reported during and after the procedure.

DISCUSSION

Accidentally ingested toothpick is documented in medical literature as an important cause of acute abdomen. It has been associated with many gut injuries including peritonitis with its attending high mortality.^{1,5} A study that looked at 136 cases reported that half of these children were not aware of having swallowed a toothpick. Same study showed abdominal pain as the commonest symptom followed by fever and nausea with an overall mortality of 9.6%.¹

Our case was a young man who accidentally swallowed a toothpick but was falsely assured it will pass out with the faeces. Ingested toothpick should be considered a medical emergency and all efforts made to localize it in the gastrointestinal tract.¹ The location of the toothpick will determine the best intervention modality for a good outcome. The inadequate and skewed gastrointestinal endoscopy service in Ghana (Awuku et al AGSM of GCPS 2014 abstract) makes open access endoscopy (OAE) inevitable in the current health delivery system.

In our case the client was referred for upper gastrointestinal endoscopy on account of intermittent abdominal pain with no mention of a swallowed toothpick. This occurrence is quiet common among children where in most cases they are unaware of having swallowed a toothpick. The diagnostic yield of a gastroenterologist at endoscopy should be high especially in OAE as the clinical information about the patient is usually limited.^{3,4}

During the endoscopy there was no conscious effort to look for a toothpick since that was not the indication and could have been missed. This is however not an excuse to discourage OAE since its benefit in our setting far exceeds the harm. We should adopt OAE in the interest of our patients by emphasizing pre-endoscopic evaluation, credentialing competent endoscopist for patient safety in Ghana. After the diagnosis of a toothpick embedded in the gastric antrum, the next step was the choice of intervention. In the absence of perforation as evidenced by normal chest x-ray an endoscopic approach was preferred.

This offers a safe option with a short hospital stay and quick recovery as opposed to surgery with its attending complications of infection, wound healing and anaesthetic challenges.^{5,6} It is important to exclude a possible perforation after the endoscopic removal and with this a chest x-ray may be adequate for this purpose.^{7,8} Our client after the endoscopic removal was followed up with x-ray and showed no evidence of perforation. Toothpick ingestion should be managed as an emergency as failure to do that can result in many complications including fistula, perforation, abscess etc.^{7,9,10} Despite the challenges of OAE it should be done in the interest of the patients.

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