


CLINICAL IMAGE

A forgotten nasogastric feeding tube that refuses to get out

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Question

A 90-year-old female patient with medical history of stroke referred to our endoscopic unit in the context of failure removing the feeding nasogastric tube at the

Key Clinical Message

Nasogastric tubes (NGT) are extensively used and generally harmless, yet loop formation and malpositioning are often reported especially when using thin NGT for enteral feeding which placed blindly; therefore, diligent follow-up of NGT is required with confirmation of right placement, changing it to PEG if long use of NGT needed.

Keywords

Hiatal hernia, knots, nasogastric feeding tube.

emergency department of our hospital after several attempts. The NGT which was placed 2 months ago could not be pulled out or pushed inside. The patient was in a confusional state while the physical examination (her abdomen was soft, nontender, and nondistended), and

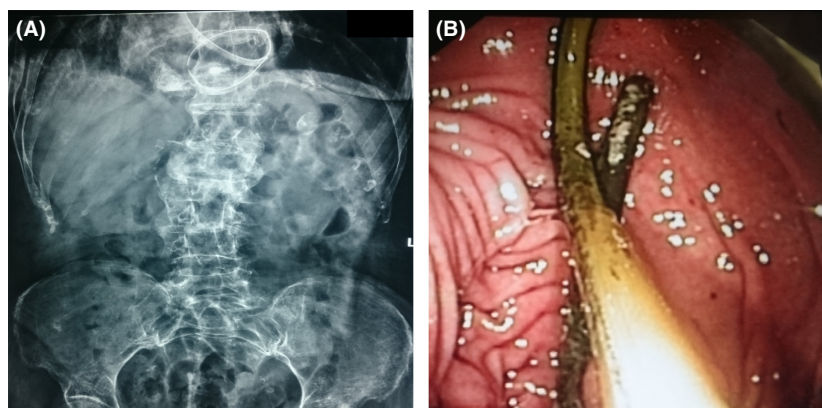


Figure 1. (A) Abdominal radiograph demonstrating the loop-forming nasogastric feeding tube. (B) Image taken of loop-forming nasogastric tube inside the hiatal hernia.

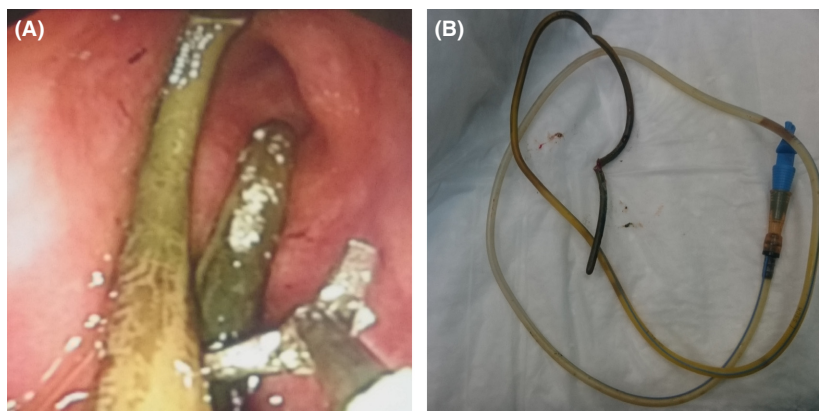


Figure 2. (A) Try to untangle the loop-forming tube using rat-tooth forceps. (B) Image taken of the loop-forming tube immediately after removal, showing the stiffness and bending of its lumen.

laboratory tests were unremarkable with stable vital signs. A plain abdominal X-ray revealed a loop in the epigastric region with no signs of GI tract perforation or any other abnormality (Fig. 1A).

What is the diagnosis?

Diagnosis

A forgotten nasogastric feeding tube forming a loop

Esophagogastroduodenoscopy was performed, and the distal part of NGT, forming a loop, was recognized inside a large hiatal hernia, 5 cm in length (Fig. 1B). The loop was released after untangling the tube with great difficulty via rat-tooth forceps (Fig. 2A). The nasogastric tube was withdrawn about half an hour later. When we reviewed the esophagogastroscope procedure, there was no active bleeding in the stomach or esophagus. Macroscopic examination showed the stiffness and bending of the loop-forming NGT (Fig. 2B).

Although an uncommon entity [1, 2], NGT coiling or knotting remains one of the numerous complications that emerge after or during tube placement [3, 4]. There are some causes that predispose nasogastric tubes to loop formation. One of them is the thin lumen and malleability as well as the excessive inserted tube length. Moreover, the presence of a hiatal hernia especially a large one (as happens in our case) may predispose to NGT coiling and loop formation. Furthermore the simultaneous use of multiple tubes crossing through the same enteric section may induce loops too [5]. Coiling emerges more frequent in patients with altered gastric anatomy (i.e., after gastrectomy) or after the softening of the tube at body temperature. Finally, in order to avoid such a complication, changing NGT to PEG if long use of the former

needed is considered as an appropriate follow-up treatment.

Statement of Human and Animal Rights

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with human and animals performed by any of the authors.

Informed Consent

Informed consent was obtained from all individual participants included in the study.

Authorship

MG: involved in conception and design. AT, LV, and AP: involved in analysis and interpretation of the data. LK and SL: involved in drafting of the manuscript. GJM: involved in critical revision of the manuscript.

Conflict of Interest

The authors declare that they have no conflict of interest.

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