

A rare complication of nasogastric tube insertion

Sir,

Gastric intestinal decontamination (GID) remains an important issue in the management of acute poisoning.^[1] Its effectiveness is dependent on the nature, form, amount of ingested toxin, and time from ingestion to admission.^[2,3] Reported adverse effects of orogastric lavage include injury to the esophagus and stomach, rupture of the stomach, inadvertent unrecognized trachea intubation as well as significant decreases in serum calcium and magnesium, severe hyponatremia, and leukocytosis.^[1] We perform GID in our poisoning emergency department through the nasogastric (NG) tube insertion. Here, we report a rare complication of NG tube insertion in patients presented with acute poisoning.

A 22-year-old woman after suicidal ingestion of toxic dose of acetaminophen was admitted to a poisoning emergency department of university referral hospital. On admission, her vital signs were within normal range. Gastric lavage had been performed in another center, and for antidote therapy, she was referred to our department. Since she was alert, we decided to take off the NG tube, but despite repeated efforts, the tube was stuck and did not go out. Because of frequent manipulations, the patient got restless and found some troubles with swallowing and respiration. On her chest and lateral neck X-ray [Figure 1], the tube was visible but we did not know why the tube was stuck?

Eventually, it was decided to transfer the patient to the operating room, and after general anesthesia, the distal end of the tube was pulled out of the patient's mouth. We observed that the end of the tube was tied up [Figure 2]. The tube was cut off in the middle and both ends were removed. The patient was transferred to the ward with a good general condition.

There are limited reports of NG tube stuck in the esophagus and oropharynx, which in some cases led to esophageal tear or perforation lead to leak-activated charcoal to the mediastinum.^[4-6] It is recommended in these case reports that if any opposition is confronted in removing the NG tube, it should not exert further force in press forward or take out the tube. After that, one should examine the pharynx to make sure that the patient is not biting down on the tube. If this is not the case, anteroposterior and lateral views of the neck and

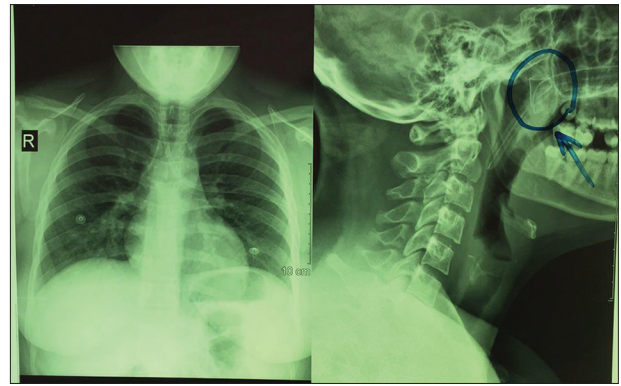


Figure 1: Chest and lateral neck X-ray for detection of NG tube location



Figure 2: Distal end of the tube was pulled out of the patient's mouth, the end of the tube was tied up

chest radiography should be done for localization of the tube, and in some cases, rigid endoscopy or barium swallow is recommended.^[4-5]

We may conclude that the frequent and violent maneuver for pulling out the NG tube could have resulted in damage to the posterior structures of nasopharynx. To prevent such cases, the patient's cooperation during NG tube insertion as well as attention to the length of the NG tube that is lowered are very important because excessive dipping of the tube can lead to tubular rotation and bending over and the possibility of knotting. We recommend more attention while during insertion as well as removing the NG tube for GID of poisoning cases.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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REFERENCES

1. Vale JA, Kulig K; American Academy of Clinical Toxicology; European Association of Poisons Centres and Clinical Toxicologists. Position paper: Gastric lavage. *J Toxicol Clin Toxicol* 2004;42:933-43.
2. Hasanpour Dehkordi A. Complications of nasogastric tube. *J Prev Epidemiol* 2018;3:e07.
3. Marx C, Marx M. Gastric lavage in cases of poisoning. *Dtsch*

Arztebl Int 2014;111:100.

4. Caravati EM, Knight HH, Linscott MS Jr., Stringham JC. Esophageal laceration and charcoal mediastinum complicating gastric lavage. *J Emerg Med* 2001;20:273-6.
5. Wald P, Stern J, Weiner B. Esophageal tear following forceful removal of an impacted oral-gastric lavage tube. *Ann Emerg Med* 1986;15:80-2.
6. Calvanese JC. Midesophageal kinking and lodgement of a 34-F gastric lavage tube. *Ann Emerg Med* 1985;14:1123-6.

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