Knotted Nasogastric tube - Not Your Usual Surgical Knot: A case report

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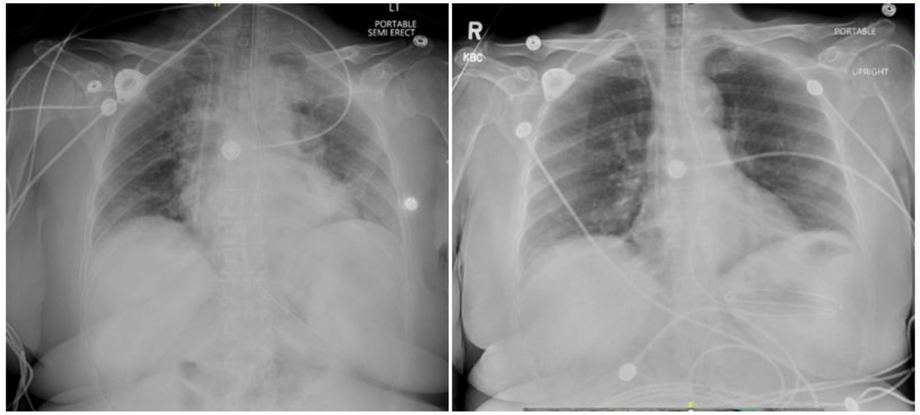
Introduction

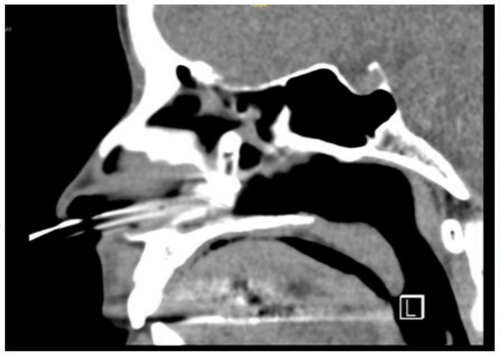
Nasogastric tubes (NGTs) are routinely used in a variety of clinical settings including treatment of bowel obstruction, administration of medications, enteral nutrition, or gastric lavage. Most common complications associated with the use of NGTs relate to the initial placement or prolonged maintenance of the tube. Here we present an unusual complication associated with the removal of our patient's NGT, which we found to be in a knot configuration. We discuss this case to provide awareness of this rare and unusual phenomenon.

Case

59 year old female with a past surgical history of exploratory laparotomy presented to ED with SBO. A 16 Fr NGT was inserted and position of the NGT tip was confirmed with immediate output of gastric content, auscultation method and an abdominal X-ray. The tube was fixated at the right nostril. The NGT had to be readjusted later as the patient inadvertently pulled the NGT back by approximately 10 cm, confirmed with X-ray, this time revealing the tip in the body of stomach with some evidence of looping due to excessive advancement.

Patient then underwent operative management after failure of conservative management. On POD 2, the patient had return of bowel function and NGT removal was attempted, we met resistance at 8 cm from the tip. All bedside maneuvers failed to remove the tube. CT sinus was performed that revealed the NGT with distal end coiled in the right posterior nasal cavity. ENT was consulted and a decision was made to remove NGT under General Anesthesia. Under nasal endoscopic guidance, it was grasped and carefully removed without complication. Patient was discharged on the day following NGT removal in stable condition.







Discussion

NGTs are very commonly used in surgical practice however their use is not without complication, albeit rare with a reported mortality of 0.3%. NGT knotting is an overlooked or even unknown complication. The predisposing factors are thought to be narrow bore tubes, multiple manipulations, deep insertion, small stomach, softening of tube at body temperature. Any difficulty during removal of a NGT should prompt investigation to rule out possible knotting. In our patient, we believe the knot formed due to excessively deep insertion of the tube during readjustment. Then upon attempted withdrawal, this likely solidified into a knot formation.

Once an NGT has formed into a knot, it can be removed safely via either nasal or oral approach, either bedside or under general anesthesia

References

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