

Bleeding After Endoscopic PEG-Tube Removal on Patient Taking Clopidogrel

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INTRODUCTION

Endoscopic percutaneous endoscopic gastrostomy (PEG) tube removal is a commonly performed procedure with known complications associated with mechanical trauma from removal of the mushroom catheter (see Figure 1). Mechanical trauma presents with gastrointestinal bleeding which can lead to severe complications if aspirated into the oral cavity or if left uncontrolled. This normally warrants a repeat esophagogastroduodenoscopy (EGD) to stop the bleeding.

Given our current COVID-19 pandemic, there is an increasing need to test patients for COVID-19 prior to getting any out-patient procedure. As the most common method for COVID-19 testing is a nasopharyngeal swab (see Figure 2), epistaxis should be an increasingly expected complication due to minor trauma of the nasal mucosa. This bleeding can often be mistaken for a complication of the out-patient procedure and therefore should be screened prior to initiating the procedure. Here we discuss a case of epistaxis post-endoscopic PEG-tube removal secondary to COVID-19 testing nasopharyngeal swab.

CASE SUMMARY

The patient was a 64-year-old African American male who underwent an EGD for PEG tube removal. Patient stated that he currently takes Clopidogrel and did not hold his Clopidogrel prior to the EGD. The procedure was performed by a gastroenterologist (with more than 30 years of endoscopy experience). Patient was properly anesthetized with propofol by a CRNA. A snare was placed around the mushroom of the stomach portion of the PEG tube. The outer portion of the PEG tube was cut, and the mushroom was removed with the endoscope. Post-EGD, while the patient was still anesthetized, the patient started choking on his own blood. Upon suctioning, several blood clots were removed from the patient's mouth. A repeat EGD was performed by the same gastroenterologist, which confirmed no active bleeding in the esophagus or stomach. After the repeat EGD, the patient begins to wake up and informs that he has been having nose bleeds for the past three days following his COVID-19 nasopharyngeal swab. Patient was sent to the emergency department for further evaluation.

DISCUSSION

Percutaneous endoscopic gastrostomy (PEG) tube is commonly placed following a cerebrovascular accident when the patient has persistent neurological dysphagia (1). Once the patient regains spontaneous swallowing, the PEG tube can be removed (1). There two main ways in which the PEG tube can be removed, the "cut and push" technique or the endoscopic removal (1). The "cut and push" technique is where the PEG tube is cut as close to the skin as possible. The external part is removed, and the internal bumper is allowed to pass through the bowel and excreted rectally (see Figure 1) (2). The "cut and push" technique can lead to a PEG ileus, where the internal bumper gets lodged in the small bowel creating a small bowel obstruction. As a result, it is recommended to the remove PEG tubes endoscopically (3). Endoscopic removal of a PEG tube involves pulling the internal bumper up with the endoscope and out of the oral cavity. Although uncommon, this can cause trauma to the stomach and esophagus as the mucosa is traumatized by the internal bumper scraping across. In this patient it was decided that his PEG tube be removed endoscopically to avoid the risk of creating a PEG ileus if the "cut and push" technique was used.

Clopidogrel is an oral irreversible P2Y₁₂ receptor antagonist which is widely used to prevent future thrombotic events (4). Like all other antiplatelet drugs, clopidogrel does increase the risk of bleeding (5). Unlike most other antiplatelet drugs however, it is not recommended stopping Clopidogrel prior to performing EGD or PEG-tube insertion/removal as the risk of hemorrhage is considered low (5). As a result, the patient continuing his Clopidogrel was not a reason to cancel the endoscopic PEG-tube removal. Instead, more caution was used to ensure no uncontrolled bleeding developed as a result of his antiplatelet therapy.

Given the current coronavirus disease (COVID-19) pandemic, caused by SARS-CoV-2, there is an increasing need to test patients for COVID-19 prior to getting out-patient procedures such as PEG tube removal. The most frequently used test for detecting SARS-CoV-2 is a nasopharyngeal swab (see Figure 2) followed by a reverse transcriptase-polymerase chain reaction (RT-PCR) to identify viral RNA (6). Although not highly prevalent, the most common complication of a nasopharyngeal swab is epistaxis (7). This is because the nasal mucosa is highly vascularized which makes it prone to bleeding from mild trauma.

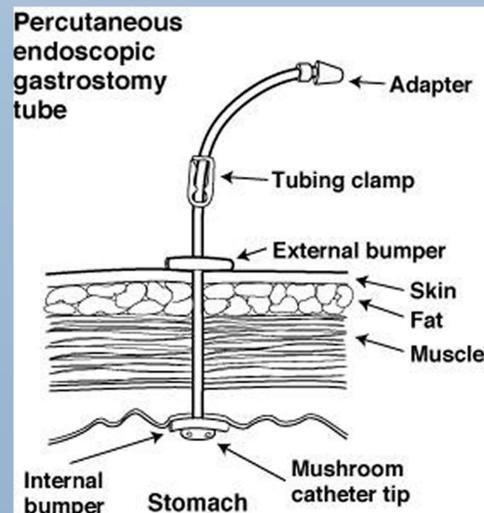


Figure 1. A drawing of a PEG-tube placed in a patient. (8)

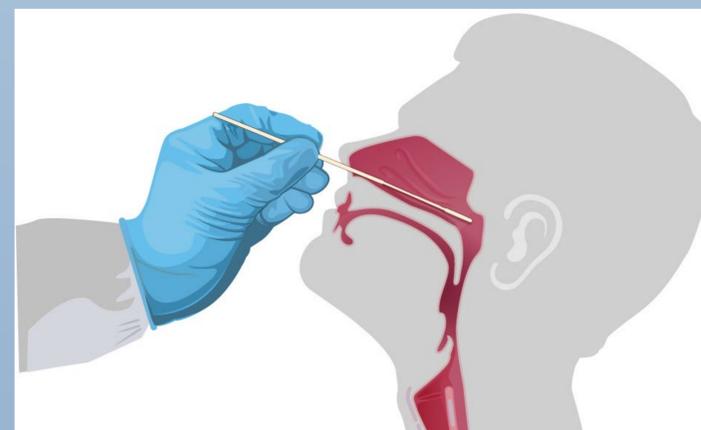


Figure 2. A depiction of a nasopharyngeal swab being performed for detecting SARS-CoV-2. (9)

CONCLUSION

Patient was examined in the emergency department where his nose was packed with gauze to stop the bleeding. He was then discharged home shortly after as his bleeding was controlled.

Learning Points:

- Endoscopic PEG-tube removal can result in complications related to uncontrolled bleeding.
- Patients on blood thinners are at an increased risk of bleeding complications from procedures.
- With the increase in nasopharyngeal COVID-19 testing swabs, patients should be screened for epistaxis prior to out-patient procedures as this can obscure procedure-related complications.

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