

# Inadvertently Sutured Nasogastric through Stomach Wall in a Patient of Peptic Perforation Repair

Dr. Hiren Vaidya<sup>1</sup>, Dr. Jay Adeshra<sup>2</sup>, Dr. Aafrin Baldiwala<sup>3</sup>

<sup>1</sup>MBBS, MS Associate Professor, Department of General Surgery, SMIMER, Surat, India

<sup>2,3</sup>Resident of General Surgery, SMIMER Medical College Surat, India

**Abstract:** A nasogastric tube is for feeding and decompression after gastrointestinal surgeries. Accidentally a nasogastric tube may get sutured with the gastric wall at the site of the perforation repair. This is a stressful situation and the surgeon has to adopt strategies to resolve this problem safely and effectively in absence of strong evidence based knowledge. Cases of knotting of NGT may be seen in small bore feeding tubes but may occur in large bore feeding tubes as well. This case report presents a way of removing sutured NGT without further need of an invasive procedure.

**Keywords:** Nasogastric tube, Peptic perforation, Upper GI endoscopy, Silk00, Knotting

## 1. Case Report

A 42 year old male patient presented at casualty of SMIMER Surat with acute abdominal pain for a day. After establishing the diagnosis of perforated duodenal ulcer, he underwent emergency exploratory laparotomy. The 2 x 2 cm<sup>2</sup> pre - pyloric perforation was repaired with Graham's patch technique with silk00. On post operative day 5, the patient was started with sips orally after blocking nasogastric tube. As the patient tolerated oral feed, nasogastric tube removal was planned. However nasogastric tube appeared stuck somewhere. It gave resistance to attempt of removal and could not be removed. Barium contrast via nasogastric tube was done (figure 1). The contrast

X-ray revealed adhered nasogastric tube at the site of perforation. There was no coiling of it. The patient was discharged then with nasogastric tube in situ. The patient was later planned for upper GI scopy under general anesthesia. Intra-procedural findings showed suturing of nasogastric tube with gastric wall at the site of perforation (figure 2). Using biopsy forceps, the suture was cut and nasogastric tube was then removed. No other pathology was seen. The patient was kept nil by mouth for two days. There was no sign of peritoneal irritation. The patient was then put on sequential oral feed which he tolerated well. He was discharged uneventfully.

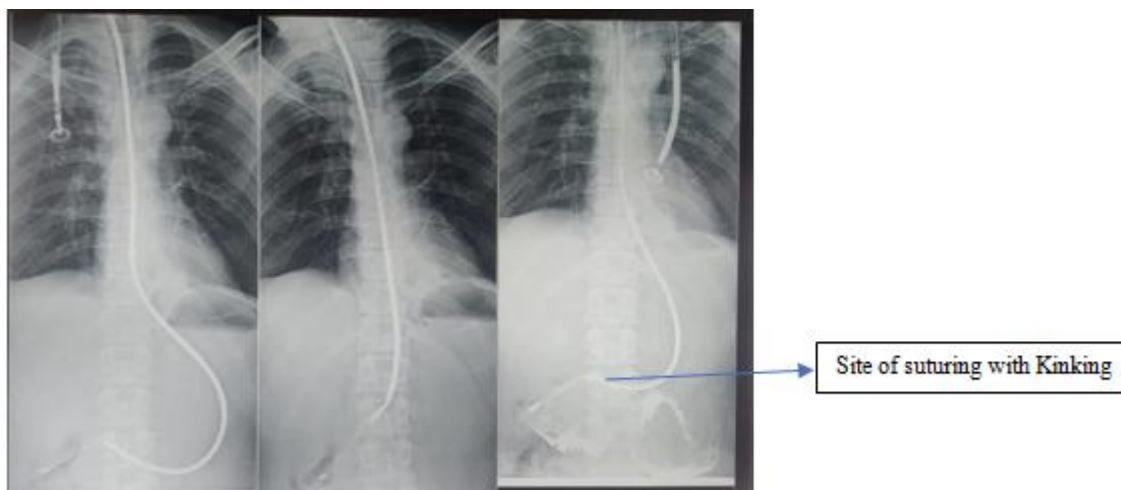
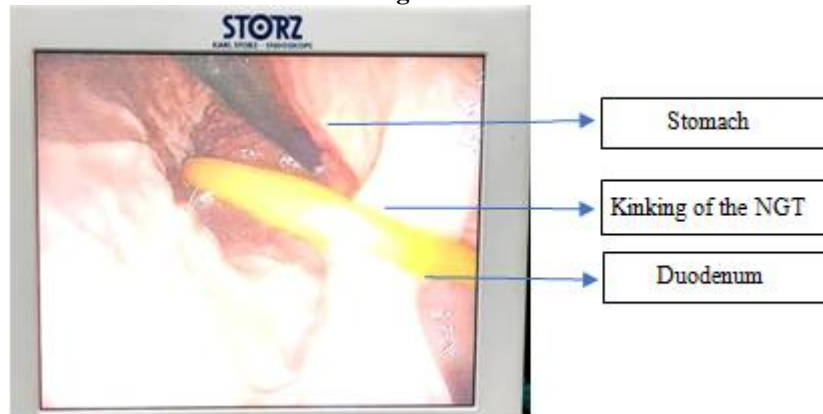


Figure 1



Silk suture through the NGT

Figure 2

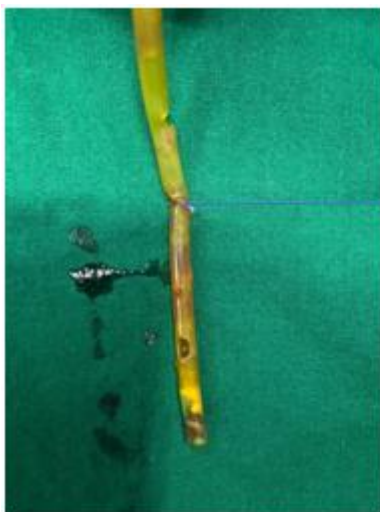


Stomach

Kinking of the NGT

Duodenum

Figure 3



Silk 00 sutured with the NGT

Figure 4

## 2. Discussion

Unexpected complications can arise during NGT insertion and removal. Following a gastric surgery, such as peptic perforation repair, a mechanically stuck NGT can be indicative of a suture anchoring the tube with gastric wall and may get kinked. Suturing of the GT is a rare complication but may nevertheless occur. There is sparse literature on how to manage this complication. Any attempt to forcibly remove the NGT should be avoided as it may lead to tear of gastric wall leading to either a perforation or bleeding.

In the current case, delayed removal of the NGT was beneficial as it gave sufficient time for gastric perforation to heal, allowed oral feeding and as the patient was discharged, it decreased overall hospital stay. In addition an upper GI endoscopy was deemed the investigation and procedure of choice as it allowed complete assessment and diagnosis of the problem as well as relatively safe removal of NGT. However an early upper GI endoscopy wouldn't have been beneficial as it might have lead to gastric distention leading to chances of perforation subsequently.

There have been rare cases of urethral catheter coiling after. They are very uncommon and little literature is available for its management.

## 3. Conclusion

Difficulty in removal of an NGT following peptic perforation repair is a rare complication and it occurred due to knotting of suture with gastric wall. Due care should of the NGT should be taken while repairing the gastric wall to avoid such complications.

## References

- [1] Dinsmore RC, Benson JF. Endoscopic removal of a knotted nasogastric tube lodged in the posterior nasopharynx. *South Med J*.1999; 92: 1005–1007.
- [2] Mahmood A, Joseph E, Robinson RB, Akhras J, McKany M, Gordon W. The role of endoscopy in nasogastric tube removal following esophageal surgery. *Int J Surg*.2007; 5: 342 - 344

- [3] Kim SY, Chung JW, Yang JY. Endoscopy: Endoscopic removal of a nasogastric tube accidentally ligated to the duodenum after open abdominal surgery. 2016; 48 Suppl 1 UCTN: E18. doi: 10.1055/s - 0041 - 111028. Epub 2016 Jan 22. PMID: 26800195
- [4] Reissman P, Udassin R, Goldin E, Durst AL. Gastrointest Endosc. Management of an inadvertently sutured nasogastric tube after Nissen fundoplication. 1994 Mar - Apr; 40 (2 Pt 1): 260 - 1. doi: 10.1016/s0016 - 5107 (94) 70191 - 1.
- [5] Sucandy I, Antanavicius G. N A novel use of endoscopic cutter: Endoscopic retrieval of a retained nasogastric tube following a robotically assisted laparoscopic biliopancreatic diversion with duodenal switch. Am J Med Sci.2011 Oct; 3 (10): 486 - 8. doi: 10.4297/najms.2011.3486. PMID: 22363090
- [6] Han HF, Perng CL, Hung HC, Lin HJ, Chang FY, Lee SD. Iatrogenic entrapped nasogastric tube with endoscopic removal. J Clin Gastroenterol.1999 Jul; 29 (1): 103 - 4. doi: 10.1097/00004836 - 199907000 - 00027. PMID: 10405246