

Case of the Successful using the Gastro-Jejunal with Jejunum-Jejunal Anastomoses (and Gastropexy) for Treatment of the Cascade Stomach

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Abstract

The cascade stomach (CS) is rare pathology of the congenital developing or acquired transformation of the gastric cavity to the “hour glass” two chambers formation. The CS abnormality is well known and debated condition in the gastroenterological and radiological practice and research. In the cases of failure of conservative treatment, the operative procedure is indicated. The published surgical experience in this field is not enough to have the protocol for operative treatment of CS. That is why the shearing of additional information is becoming actual. In view of this, we present the case of successful using the gastro-jejunal with jejunum-jejunal anastomoses (and gastropexy) to treat the CS disease.

Keywords: *Cascade stomach; Case report; CT scan; Endoscopy; Surgical treatment; Gastro-jejunal; Jejunum-jejunal anastomoses; Gastropexy*

1. Introduction

CS deformation can be a result of developing congenital abnormalities or due to acquired factors.

It is characterized as hourglass transformation and known as “champagne cup deformity” or “cup and spill stomach”. The constriction between the cardiac and pyloric portions is mentioned as well [1-5].

The CT scan, fluoroscopy, endoscopy is world recognized methods to diagnose and investigate this rare pathology [6-10].

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The information about incidences, risk factors, association with others pathology, conservative therapy and upper abdominal surgical procedures is limited [5,4,9-12]. Unfortunately, until now there is no international treatment guidelines.

2. Case Report

A 55-year-old male presented with nonspecific upper GI disorders complain (epigastric pain on and off, nausea, lack of appetite, a sense of heaviness in the epigastric region, bloating, associated with vomiting) for 3 weeks.

Physical and systemic examinations were within normal limits. Routine hematological and ultrasonic abdominal investigations were normal. Upper GI endoscopy detected irregular, edematous, and congested gastric mucosa which bled easily on scope touch.

The abdomen CT- scan revealed prominent gastric dilatation, cascade stomach, dorsal fundus pouch associated with pyloro-duodenal mural asymmetric wall thickening and luminal narrowing.

This case was managed with exploratory laparotomy by gastropexy, gastro-jejunostomy and jejuno-jejunal anastomoses. At the end of operation, the stomach was fixed to diaphragm to prevent the developing of volvulus in postoperative period.

The surgery was done with a very good outcome. There was complete resolution of symptoms after 6 months of following up.

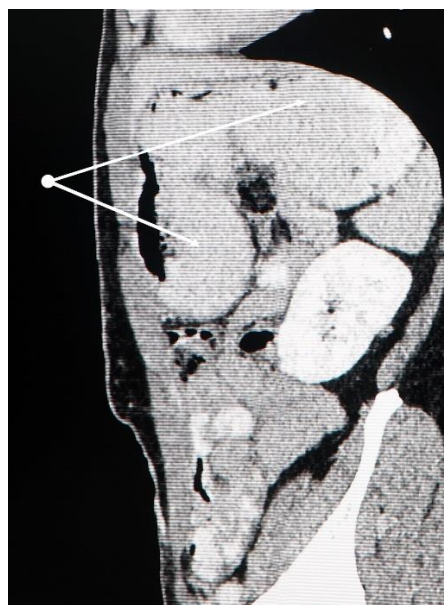


FIG. 1. Abdomen CT scan showing the “cup and spill stomach” biloculated gastric cavity dilatation with the pyloro-duodenal mural asymmetric wall thickening causing luminal narrowing.

3. Discussion

In literature the dates of incidence of CS have little presentation. Mainly, the CS cases were found incidentally or during investigation of patients with the upper gastrointestinal symptoms [1,2,10].

The male patient was predominating to female, and age range was 20-80 years [1,11].

There are no specific symptoms of CS were found. And epigastric pain, nausea, vomiting, dyspepsia, gastroesophageal reflux, heartburn was reported [1,4,8,12].

In CS cases, the gastritis, gastric volvulus, gastric and duodenal ulcer, diverticulum, intra-abdominal adhesions, hiatal hernia, transient lower esophageal sphincter relaxation, gastric and pancreatic malignancy, choledocho-duodenal fistula were detected [3-5,10,11,13,14].

The upper gastrointestinal contrast fluoroscopy, upper endoscopy, and CT-scan is recognized as the basic diagnostic investigations [1-3,6-8,5].

Dietary adjustments, antacids, H2 blockers, PPI, antispasmodics are used to treat CS.

Unfortunately, conservative management is not always getting success [1]. In this situation surgical treatment was advised.

The laparoscopic Nissen's Fundoplication [1], open and laparoscopic creating gastro-gastric anastomosis [15], open and laparoscopic gastric sleeve resection [12,16,17], laparoscopical adhesiolysis, gastropexy and gastro-jejunostomy [14] was successfully used to treat patients with CS pathology.

The above-mentioned surgical procedures have been demonstrating good results, but number are limited, and we do not have established protocols or recommendations.

4. Conclusion

Cascade stomach is a rare pathology in surgical practice. The operation is indicated in the case of failure the conservative treatment. The performed gastro-jejunal, jejuno-jejunal anastomoses and gastropexy is worldwide well-known surgery and treated the CS patient with good outcome.

The absence of the surgical guide line to treat this disease needs further study and share of international experience.

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REFERENCES

1. Chhabra MK, Mongia AK. Cascade stomach: a case report Int Surg J. 2016;3(2):1005-8.
2. Ahmad S, Trivedi V. A Case of Cascade Stomach. Am J Gastroenterol. 2013;108(p):S240

3. Bradsbury C, Balaji N. The cascade stomach. Revisited in the 21st century – what has changed? Poster, University Hospitals in the North Midlands, Midlands, UK. 2017.
4. Schouten R. Laparoscopic sleeve resection of a recurrent gastric cascade: a case report. *J Laparoendosc Adv Surg Tech A*. 2007;17(3):307-10.
5. Morgan MA. Cascade stomach. <https://radiopaedia.org/cases/cascade-stomach>
6. Kusano M, Hosaka H, Moki H, et al. Cascade stomach is associated with upper GI symptoms, a population-based study. *Neurogastroenterol Motil*. 2012;24(5):451-5.
7. Gulsen MT, Koruk I, Dogan M, et al. Diagnostic accuracy of cascade stomach by upper gastrointestinal endoscopy in patients with obscure symptoms: A multi-center prospective trial. *Clin Res Hepatol Gastroenterol*. 2011;35(6):489-93.
8. Kusano M, Hosaka H, Yasuoka H, et al. New endoscopic classification of cascade stomach, a risk factor for reflux esophagitis. *J Gastroenterol*. 2017;52(2):211-7
9. Benharroch D, Umansky R. Cascade stomach - commentary a propos a case. *SCIREA J Clin Med*. 2021;6(3):150-5.
10. Morgan M. Cascade stomach. Case study, Radiopaedia.org. (accessed on 23 May 2022).
11. Sirakov V, Stefanov R, Shipkov C. The most common cause of cascade stomach. *Folia Med (Plovdiv)*. 1994;36(3):37-9.
12. Bernante P, Balsamo F, Rottoli M, et al. Cascade Stomach as a Risk Factor for Incomplete Resection of the Gastric Fundus in Laparoscopic Sleeve Gastrectomy: A Point of Technique. *Obes Surg*. 2020;30(12):5139-41.
13. Akiyo K. Increase of transient lower esophageal sphincter relaxation associated with cascade stomach. *J Clin Biochem Nutr*. 2017;60(3):211-5.
14. <https://www.sages.org/meetings/annual-meeting/abstracts-archive/management-of-cascade-stomach-in-a-previously-operated-bochdalek-hernia-with-tension-gastrothorax/>
15. Battisi G, Natali G. Cascade vomiting-laprosopic treatment. *Endoscopy*. 1998;30(8):92-3.
16. Schouten R, Freijzer PL, Greve JW. Laparoscopic sleeve resection of a recurrent gastric cascade: a case report. *J Laparoendosc Adv Surg Tech A*. 2007;17(3):307-10.
17. Schaffiner VD, Burton GV. Cascade stomach. *Canad Mass J*. 1941;45(1):52-6.