



Gastro-Colic Fistula After Sleeve Gastrectomy Leak: Our Experience with this Rare Complication

Chetan D. Parmar¹  · Hany Khalil¹ · Muffazal Lakdawala² · Chetan Bhan¹ · Pratik Sufi¹

Published online: 11 July 2019

© Springer Science+Business Media, LLC, part of Springer Nature 2019

Abstract

Background Sleeve gastrectomy (SG) is one of the commonest bariatric procedure performed worldwide (*Asian Journal of Endoscopic Surgery* 7:314–6, 2014). Leaks reported in 1 to 7% of cases are difficult to manage after SG. Leaks can be graded into acute (within 7 days), early (within 1–6 weeks), late (after 6 weeks) and chronic (after 12 weeks) (*Asian Journal of Endoscopic Surgery* 7:314–6, 2014). Oesophageal stents can be used for acute leaks. Gastro-colic fistula (GCF) is a rare complication following a chronic leak after SG (*Asian Journal of Endoscopic Surgery* 7:314–6, 2014). We would like to share our experience of a rare and challenging case of GCF after SG leak.

Method Prospectively collected data in our tertiary bariatric centre was retrieved.

Results A 31-year-old female with body mass index (BMI) of 46.2 kg/m² with history of bipolar disorder had an uneventful SG. On sixth day post-operatively, she presented to other unit with lower chest pain and had a computed tomography (CT) scan which was normal. At 6-week follow-up (FU), she had lost 44% excess weight loss (EWL) and complained of epigastric pain and reflux. CT scan showed collection with active leak in SG. This was successfully treated with partially covered stent placement. Imaging confirmed control of leak. Ten days later, endoscopic removal of the stent was successfully done. At 6-month FU, she had 86% EWL. At 1-year FU, she had 102% EWL with complain of reflux despite being on proton pump inhibitor (PPI). There were no nutritional parameter concerns. There was no history of diarrhoea. CT scan showed GCF (Image 1). OGD confirmed the findings and the site was tattooed. Colonoscopy was equivocal, and no clear fistula visualised which would explain the lack of diarrhoea. Operation was planned with colorectal team after multidisciplinary team discussion. At laparoscopy (Video 1), GCF was identified between SG and splenic flexure at the site of the previous leak. Adhesiolysis was done with a combination of blunt, sharp and energy device and the gastric sleeve and the splenic flexure were mobilised. The fistulous tract was isolated, divided and excised with Endo GIA tri stapler taking partial lumen of colon. Intra-operative oesophagogastrroduodenoscopy (OGD) showed no leak and colonoscopy showed no leak or narrowing of the lumen and showed healthy tissue. Post-operative recovery was uneventful. She was closely monitored by the bariatric dietician throughout the journey. At 6-month FU, she regained weight under close supervision, had EWL of 88% and is doing well.

Conclusion SG leaks can add long-term morbidity. Stent can be used successfully to treat SG leak if used judiciously. There should be low threshold for investigating patients with EWL of > 100% for anatomical complications like stricture, fistula or kink in the gastric sleeve. We wanted to make the bariatric fraternity aware of a rare late (> 12 weeks) complication of gastro-colic fistula after successfully treated SG leak. Limited literature is published about this rare complication and its management which ranges from conservative management to stent placement to surgical intervention (*Asian Journal of Endoscopic Surgery* 7:314–6, 2014; *Clinical Case Reports* 6:1342–1346, 2008; *Surgery for Obesity and Related Diseases* 6:308–12, 2010). It can be dealt with successfully with minimally invasive technique by a multidisciplinary team in an experienced tertiary bariatric unit.

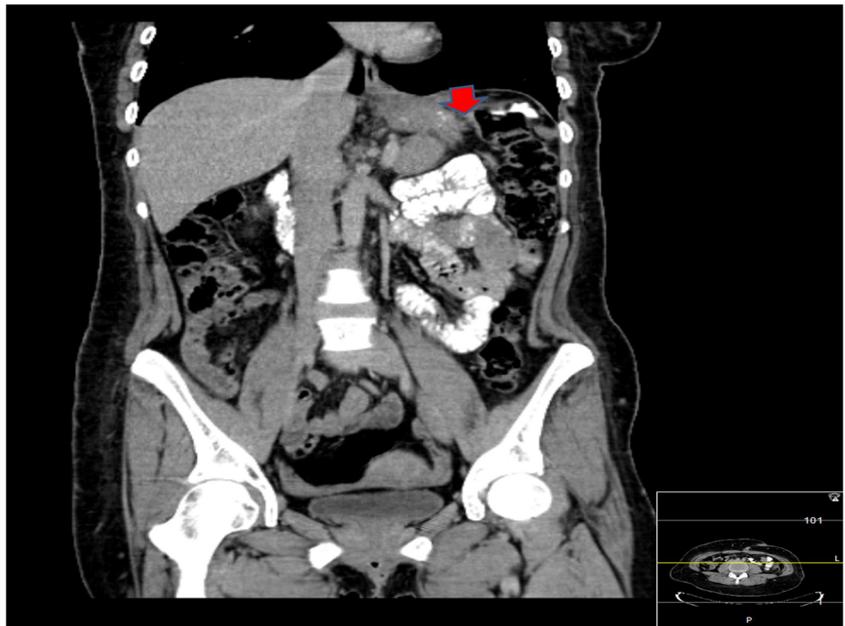
Electronic supplementary material The online version of this article (<https://doi.org/10.1007/s11695-019-04086-x>) contains supplementary material, which is available to authorized users.

✉ Chetan D. Parmar
cparmar@nhs.net

¹ Whittington Hospital, London N19 5NF, UK

² Saifee Hospital, Mumbai, India

Image 1 CT scan image showing the gastro-colic fistula (red arrow)



Keywords Bariatric surgery · Sleeve gastrectomy · Leak · Gastro-colic fistula

Abbreviations

SG Sleeve gastrectomy
EWL Excess weight loss
GCF Gastro-colic fistula

Acknowledgements Thanks to Harriet Croxton (Whittington Health Librarian), always ready to help.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval This type of study does not need ethical approval.

References

1. Bhasker AG, Khalifa H, Sood A, et al. Management of gastro-colic fistula after laparoscopic sleeve gastrectomy. *Asian J Endosc Surg.* 2014;7(4):314–6. <https://doi.org/10.1111/ases.12122>.
2. El Sayegh JS, Nicolas G, Yammine K, et al. Resolution of late-onset gastro-colic fistula after laparoscopic sleeve gastrectomy by conservative management: a case report. *Clin Case Rep.* 2018;6(7):1342–6. <https://doi.org/10.1002/ccr3.1551>
3. Trelles N, Gagner M, Palermo M, et al. Gastrocolic fistula after re-sleeve gastrectomy: outcomes after esophageal stent implantation. *Surg Obes Relat Dis.* 2010;6(3):308–12. <https://doi.org/10.1016/j.soard.2009.08.015>.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.