CASE REPORT – OPEN ACCESS

International Journal of Surgery Case Reports 24 (2016) 128–130

Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.casereports.com

Gastric lipoma excision during a laproscopic sleeve gastrecomy: A case report

Jaber O. Al Shammari, Nimer Al-Shadidi, Ahmad J. Abdulsalam*, Abdullah E. Al-Daihani

Department of Surgery, Al Adan Hospital, Kuwait

ARTICLE INFO

Article history:
Received 15 April 2016
Received in revised form 22 May 2016
Accepted 22 May 2016
Available online 24 May 2016

Keywords:
Laparoscopic
Gastric
Sleeve gastrectomy
Lipoma
Stomach

ABSTRACT

INTRODUCTION: Gastric lipomas are rare benign mesenchymal tumors of the stomach.
CASE REPORT: We report a 41 year old, morbid obese male, admitted for elective laparoscopic sleeve gastrectomy. Thorough preoperative assessment revealed a gastric lipoma in the antrum of the stomach measuring 3 × 3 cm. Due to the patient's preference, surgical resection of the lipoma was done along with the laparoscopic sleeve gastrectomy procedure.
DISCUSSION: In our case, we report a rare case of submucosal gastric lipoma successfully removed during a laparoscopic sleeve gastrectomy. To our knowledge, this is the second case report in the medical English literature that reports removing this rare gastric tumor during an elective bariatric procedure.
CONCLUSION: This case report presents an effective treatment option for patients in need of bariatric procedure and gastric lipoma resection. This case also highlights the importance of through preoperative and intraoperative assessment for all bariatric patients.

1. Introduction

Gastric lipomas are benign rare benign mesenchymal tumors of the stomach that accounts for <1% of all gastric neoplasms [1]. Most gastric lipomas are small and asymptomatic. They are usually presented as incidental findings [1]. The diagnosis is strongly suggested by abdominal CT scan findings and isconfirmed by histology [2]. The standard treatment of gastric lipoma is surgical resection, but endoscopic treatment has been proposed for small sized tumors [3]. We report a case of a morbid obese patient who had a gastric lipoma excision during a laparoscopic sleeve gastrectomy procedure.

2. Case report

A 41-years old Indian male, known case of obstructive sleep apnea, presented to the surgical outpatient department with a referral to the polyclinic regarding his morbid obesity. On the visit he weighted at 130 kg and 175 cm with a BMI of 43.9. He complained of a decreased quality of life including his daily routine, work, family, and sleep all due to his weight. The patient also mentioned multiple attempts of trying to diet and exercise over the past 10 years, however all of his attempts were unsuccessful. Patient was requesting to do a laparoscopic gastric sleeve operation after reading about the different types of bariatric procedures. After a few outpatient visits, preoperative workup for the patient was performed along with psychological and nutritional assessment. A complete blood count, a complete chemistry panel, liver function tests, thyroid function tests, cortisol levels, a lipid profile, coagulation tests, serum iron and total iron binding capacity, vitamin B-12, folic acid, blood typing, chest x-ray and urinalysis were all normal. Ultrasound abdomen was also performed which showed an enlarged liver of 18.8 cm, normal common bile duct and gallbladder.

The patient proceeded for an upper endoscopy to rule out intrinsic upper gastrointestinal disease. During the endoscopy, a rounded 3 × 3 cm mass was seen in the antrum of the stomach with normal mucosa covering it (Fig. 1). The mass was easily compressed and lifted up with biopsy forceps ('cushion-sign' and 'tenting sign' positive). The fundus and body of the stomach were normal. CT scan was obtained to investigate the mass in the antrum of the stomach. The contiguous axial CT images were obtained from the dome of the diaphragm to the pubic symphysis. These images showed a suspicious oval shaped lesion measuring 3.5 × 3 cm in the antrum of the stomach, suspicious of a lipoma (Fig. 2). All other organs were normal.

The patient was consulted and educated about his CT findings and the possibility of a lipoma in the stomach. The patient insisted on the bariatric procedure of sleeve gastrectomy due to his personal preference. He also requested for the lipoma to be removed during the same operation. Both decisions of the patient were strongly opposed by the whole surgical team however the patient insisted. High risk consent was sought and the patient was scheduled to

* Corresponding author at: Department of Surgery, Adan Hospital, P.O. Box 46969, Hadiya, Kuwait.
E-mail address: a7medo@gmail.com (A.E. Al-Daihani).

http://dx.doi.org/10.1016/j.ijscr.2016.05.040

Fig. 1. Upper endoscopy showing a rounded 3 × 3 cm mass in the antrum of the stomach with normal mucosa covering it. A gastric lipoma is suspected.

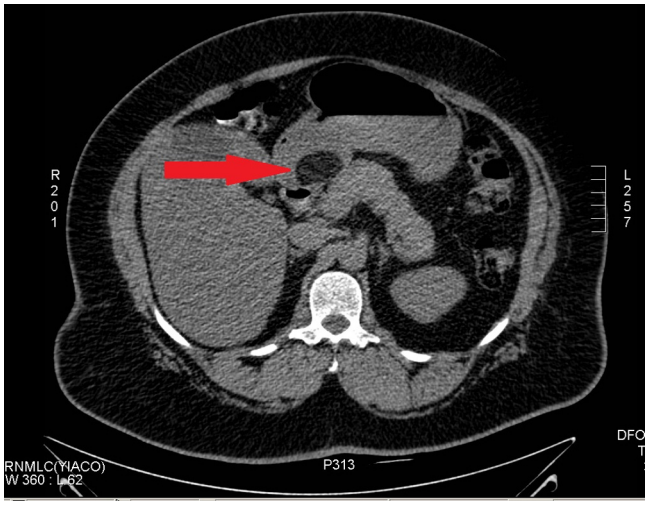

Fig. 2. Computed tomography scan of the abdomen showing a suspicious oval 3.5 × 3 cm mass in the antrum of the stomach.

remove the intragastric submucosal lipoma as part of the laparoscopic sleeve gastrectomy procedure.

General anesthesia was performed with endotracheal intubation. The patient was placed in semi lithotomy position, in which Foley's catheter inserted and an IPC device was applied for both legs. Veress needle was inserted in the left subcostal region. Insufflation of CO2 was done until the intra-abdominal pressure is 15 mmHg. A primary supra-umbilical port under vision with camera (zero degree was inserted), following the insertion of the secondary ports. The stomach was visualized and the intragastric lipoma bulge

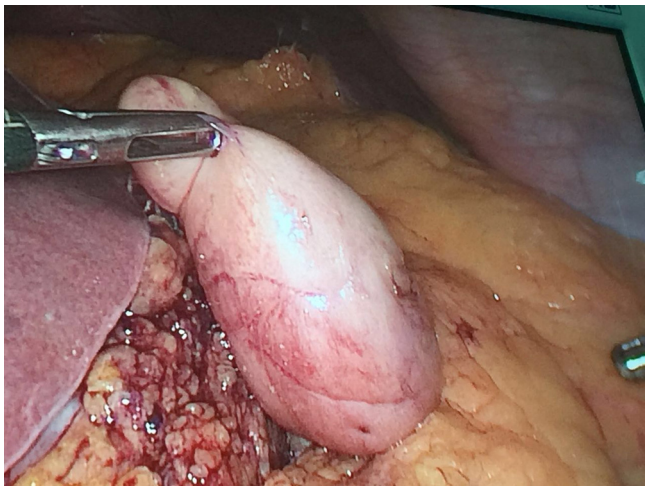

Fig. 3. Laproscopic intraoperative imaging showing ovoid tan well circumcised mass measuring 4 × 3 × 2 cm. Cut surface shows yellow glistening surface.

seen from the outside at the area of the antrum. The greater curvature was mobilized at 5 cm from the pylorus and upward. The stomach was incised at the greater curvature 6–7 cm distal to the pylorus. The intragastric submucosa mass was seen from inside the stomach. The mucosa covering it was incised and the lipoma was grasped with a babcock instrument and dissected blunt from its connections. In addition, the feeding vessel was cauterized with harmonic scalpel and the lipoma was excised totally. The mucosal layer was closed with vicryl 2.0 suture and the opening at the stomach was closed. The sleeve gastrectomy was completed in which incision was made by gastric tube FR 36 using 8 staplers. Hemostasis was performed, then extraction and retrieval of the resected stomach was done through the left port. Suction irrigation was done and instruments were removed with no bleeding and the skin was closed. Intraoperative time was 2 h and a half and bleeding was 200 cc.

Postoperative recovery was uneventful. The patient was started on a liquid diet from the second day and was discharged on the 4th post-operative day. Two weeks later, the patient was reassessed in the outpatient clinic where he was completely asymptomatic with normal daily function. The macroscopic study of the lesion was consistent with gastric submucosal tumor, 4 × 3 × 2 cm, with lipomatous appearance (Fig. 3). Histopathology studies under microscopy was consistent with benign gastric angiolipoma with clear margins (Fig. 4).

3. Discussion

Lipomas of the stomach are very rare, accounting for less than 3% of all benign tumors of stomach [4]. In our case, the submucosal tumor was asymptomatic and was only detected as an incidental finding during his preoperative workup for an elective laparoscopic sleeve gastrectomy. Diagnosis was suspected when upper endoscopy was done showing a mass in the antrum. It was confirmed during CT scan, and visualized intraoperatevly. The gastric lipoma was removed intraoperatevly before the stomach resection.

The treatment modalities for gastric lipomas have been changed in parallel with the advances in endoscopic and imaging techniques. The choice of treatment for gastric lipomas is still controversial and flexible [5]. It was reported that different surgical and endoscopic procedures have been used in treatment of submucosal lipomas, but more accurate diagnosis preoperatively enable the replacement of previously used resection methods [5].

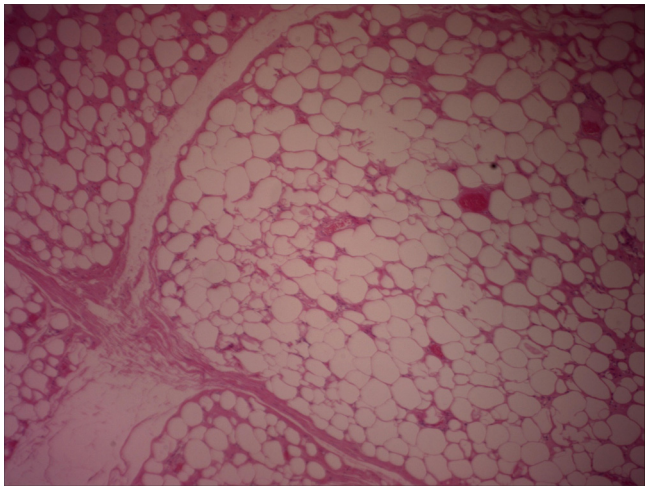

Fig. 4. Histopathology Section revealed a circumscribed mass composed of mature adipose tissue separated into lobules by fibrovascular septae with vascular congestion and small capillaries. No atypia seen. Diagnosis consistent with angiolipoma.

To our knowledge, this is the second case report in the medical English literature to remove this rare gastric tumor during an elective bariatric surgery. There has been a similar case report of gastric lipoma excision during laparoscopic subtotal gastrectomy using a different technique [6].

4. Conclusion

In our case, we report here a rare case of submucosal gastric lipoma successfully removed during a laparoscopic sleeve gastrectomy Accurate diagnosis of gastric lipoma, which can be reached with a combination of endoscopic and imaging diagnostic techniques, is a very useful precondition aiding in choosing the appropriate and more convenient option of treatment. As in our case, excision of the gastric lipoma during a gastric sleeve procedure was most appropriate. This case report demonstrates a new effective management option for patients with gastrointestinal submucosal tumors. With consent and patient preference, this case sets a precedent for surgeons to simultaneously perform bariatric procedures and excise submucosal gastric tumors when it is indicated. This case also highlights the importance of through preoperative and intraoperative assessment for all bariatric patients.

Conflicts of interest

None.

Funding

None.

Ethical approval

None.

Consent

Written informed consent was obtained from the patient for publication of this case report and any accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

Author contribution

AJA and AED, contributed equally by examining the patient, following up the patient, writing up the manuscript, and reviewing the literature. JOA and NA were the surgeons assigned to the case. All authors read and approve the final manuscript.

Guarantor

JOA is the Guarantor and head of our surgical unit in Adan Hospital, Kuwait.

Acknowledgement

We acknowledge all the great efforts and contributions of the Unit D Surgical Team of Adan Hospital, Kuwait. Specifically, we would like to acknowledge our mentors and consultants Dr. Nael M. Alshammari and Dr. Hamid Labib.

References

[1] M.J. Fernandez, R.P. Davis, P.F. Nora, Gastrointestinal lipomas, Arch. Surg. 118 (1983) 1081–1083.
[2] M.M. Hamdane, E.B. Brahim, Salah M. belhaj, N. Haouas, A. Bouhafa, A. Chedly-Debbiche, Giant gastric lipoma mimicking well-differentiated liposarcoma, Gastroenterol. Hepatol. Bed Bench 5 (1) (2012) 60–63.
[3] H.G. Yu, Y.M. Ding, S. Tan, et al., A safe and efficient strategy for endoscopic resection of large, gastrointestinal lipoma, Surg. Endosc. 21 (February (2)) (2007) 265–269.
[4] S. Fukuda, R. Yamagata, T. Mikami, T. Shimoyama, M. Sawaya, Y. Uno, M. Tanaka, A. Munakata, Gastric lipoma successfully treated by endoscopic unfroofing, Dig. Endosc. 15 (2003) 228–231.
[5] D. Alberti, L. Grazioli, P. Orizio, L. Matricardi, S. Dughi, L. Gheza, D. Falchetti, G. Caccia, Asymptomatic giant gastric lipoma: what to do? Am. J. Gastroenterol. 94 (1999) 3634–3637.
[6] Olguín R. Roberto, Norero M. Enrique, Briceño Eduardo, Martínez Cristian, Viñuela Eduardo, Báez Sergio, et al., Gastric lipoma removed by laparoscopic subtotal gastrectomy: report of one case. Rev. Méd. Chile [Internet]. 2013 July [cited 2016 March 29]; 141 (7) 927–931.