A.K.J. Kiu, A.N. Lord, M.I. Trochsler, G.J. Maddern, H.A. Kanhere

Isolated non-hepatic metastasis from upper gastrointestinal adenocarcinoma: a case for surgical resection

International Journal of Surgery Case Reports, 2014; 5(6):307-310

CASE REPORT – OPEN ACCESS

International Journal of Surgery Case Reports 5 (2014) 307–310

Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.casereports.com

Isolated non-hepatic metastasis from upper gastrointestinal adenocarcinoma: A case for surgical resection

A.K.J. Kiu[a], A.N. Lord[a], M.I. Trochsler[a,b], G.J. Maddern[a,b], H.A. Kanhere[a,b,*]

[a] Department of Surgery, The Queen Elizabeth Hospital, 28 Woodville Road, Woodville South, SA 5011, Australia
[b] Division of Surgery, University of Adelaide, Australia

ARTICLE INFO

Article history:
Received 26 February 2014
Accepted 2 April 2014
Available online 13 April 2014

Keywords:
Gastric adenocarcinoma
Oesophageal adenocarcinoma
Metastectomy

ABSTRACT

INTRODUCTION: Upper Gastrointestinal Tract (UGIT) malignancy is an increasing problem in western society and its prognosis is generally poor. The prognosis dims even further with the presence of loco regional recurrences or distant metastasis. This article looks at the feasibility and potential benefit from resection of non-hepatic, non-nodal metastases and recurrences.
PRESENTATION OF CASE: Case 1. A 72-year-old male who underwent total gastrectomy for a gastric adenocarcinoma presented with a splenic mass 40 months later and underwent a splenectomy. He is disease free at 30 months post-metastectomy. Case 2. A 54-year-old male with oesophagogastric junctional adenocarcinoma, underwent an Ivor-Lewis oesophagectomy. He developed a distal pancreatic mass at 24 months follow-up and underwent distal pancreatectomy and splenectomy. He is disease free at 12 months post-metastectomy. Case 3. A 75-year-old male underwent subtotal gastrectomy for lesser curvature adenocarcinoma. At 42 months follow-up, he developed solitary abdominal wall recurrence. This was locally resected with clear margins. After 12 months, he developed another full thickness abdominal wall recurrence with involvement of the hepatic flexure. Enbloc resection including right hemicolectomy was performed and he is disease free at 3 months.
DISCUSSION: There is very scarce literature on resection of non-hepatic, non-nodal recurrences/distant metastasis in oesophagogastric cancers. Based on these cases, a surgical resection in selected cases may provide prolonged survival with good quality of life.
CONCLUSION: Resection for isolated recurrences and metachronous metastasis from UGIT cancers may be worthwhile, especially if patients have minimal co-morbidities.

1. Introduction

UGIT malignancy is an increasing problem in western society. Generally, the prognosis for oesophageal and gastric cancers is poor at best.[1,2] Gastric cancer is the 4th most common cancer worldwide[3] and 11th in Australia.[4] It is more common in men and has an incidence of 11.9 per 100,000 in men, 5.5 per 100,000 in women with a combined incidence of 8.7 per 100,000.[4] Combined 5 year survival figures sit at 17.5%.[5]

Oesophageal cancer is the 8th most common in the world,[3] and 15th in Australia,[4] with an incidence of 5.8 combined and 8.4 and 3.1 per 100,000 population respectively for males and females.[4] The 5-year survival for oesophageal cancer is a meagre 12.5% across all the stages.[5]

The poor prognosis that afflicts western patients is not mirrored in the East Asian population. The incidence of gastric cancer in East Asia is as high as 30 per 100,000[6] but 5-year survival rates are up to 60% in some Japanese studies.[6] Screening programmes and early diagnosis may be partly responsible for this difference. Literature from Japan suggests more radical surgery may be beneficial as well.[6]

While the results of the MAGIC trial,[7] with perioperative chemotherapy, indicate an improvement in survival in the Stage 2 and 3 groups, the prognosis for M1 (AJCC) or Stage 4 disease still remains poor (4% five year survival) according to the AJCC.[8] Metachronous recurrences and metastasis are seldom treated with curative intent and palliative chemotherapy or radiotherapy, if anything, is usually the preferred treatment modality.

Data on surgical resection of isolated metastases from UGIT malignancy is sparse with variable outcomes.[9–12]

On this background we present three cases with good survival and quality of life after surgical resection of metachronous isolated non hepatic metastases form oesophago-gastric carcinomas.

* Corresponding author at: Division of Surgery, Level 6A, The Queen Elizabeth Hospital, 28 Woodville Road, Woodville South, SA 5011, Australia. Tel.: +61 8 82226750; fax: +61 8 82226028.
E-mail address: kanhere.harsh@health.sa.gov.au (H.A. Kanhere).

http://dx.doi.org/10.1016/j.ijscr.2014.04.004

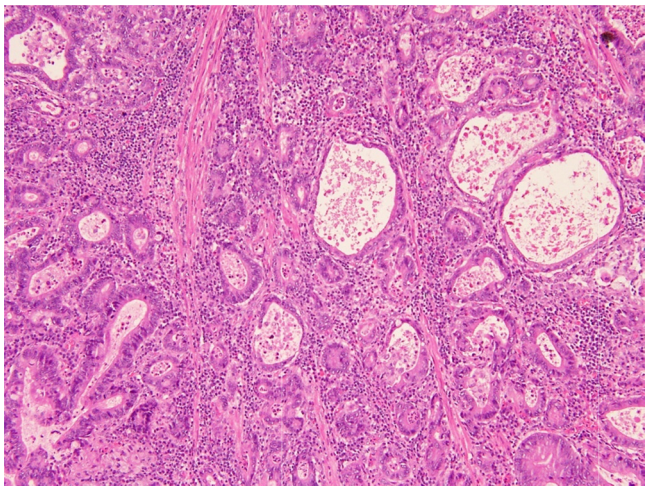

Fig. 1. Primary gastric adenocarcinoma.

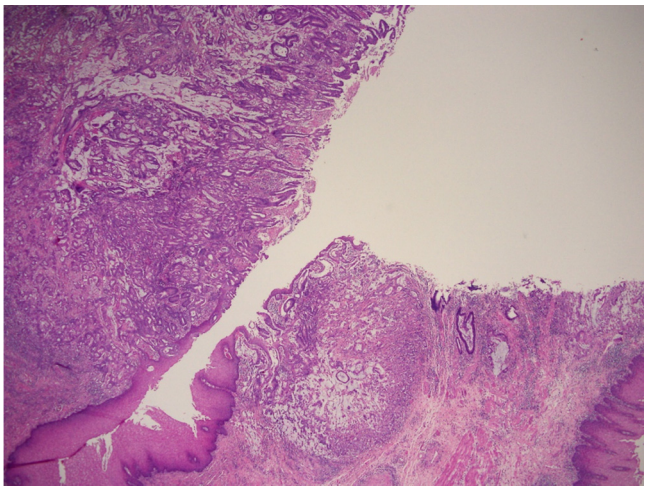

Fig. 3. Primary oesophageal adenocarcinoma.

2. Case presentation

2.1. Case 1

A 72-year-old male, on follow up after a total gastrectomy for a pT3 N0 proximal gastric cancer, was found to have a splenic mass on annual surveillance CT scan 40 months after the initial surgery. There was no evidence of any other metastases. Endoscopy was normal. The case was discussed at the unit multidisciplinary meeting (MDM) and a decision to perform an exploration with view to resection was taken in view of isolated nature of the possible metastasis. He underwent a laparotomy and splenectomy, which confirmed gastric carcinoma identical to that previously seen on the gastrectomy specimen. He was offered chemotherapy and declined. He has been followed in outpatients and at 30 months remains disease-free (Figs. 1 and 2).

2.2. Case 2

A 54-year-old male had previously undergone an Ivor-Lewis oesophagectomy after neoadjuvant chemo radiotherapy for a moderately differentiated pT3 N2 junctional adenocarcinoma starting at 36 cm from the incisors. This was on a background of DM and hypertension.

At 24 months follow-up, he was found to have a 5 cm lesion in the tail of the pancreas on a CT scan. Further imaging was inconclusive as to the nature of the lesion. The case was discussed at the unit MDM and he subsequently underwent a distal pancreatectomy and splenectomy. Histology revealed this to be a mucinous adenocarcinoma in keeping with the previous oesophageal primary. There was extensive neural invasion. He recovered well initially but was readmitted with a small bowel obstruction a month after surgery and underwent further laparotomy. A single band adhesion was found and divided and he had an uneventful recovery after this. He underwent adjuvant chemotherapy and remains disease free at 12 months post-metastectomy (Figs. 3 and 4).

2.3. Case 3

A 75 year-old male had previously undergone a subtotal gastrectomy for a PT4 N2 gastric carcinoma. This was on a background of hypertension and mild asthma. He was given a course of adjuvant chemoradiotherapytherapy.

He underwent follow-up as per unit protocol with regular clinical examinations and imaging, He presented to follow-up at 42 months with a lump in the abdominal wall in the right upper quadrant. Ultrasound revealed an intramuscular lesion invading anterior and posterior rectus sheaths, and a fine needle aspirate confirmed this to be adenocarcinoma .The lump, 25 mm × 20 mm × 25 mm

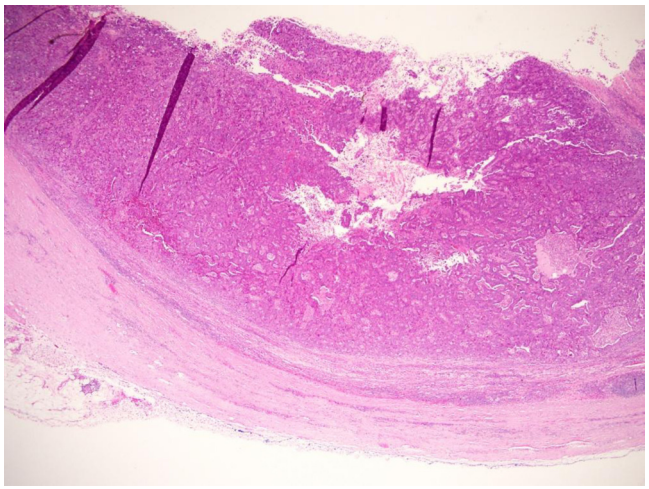

Fig. 2. Splenic metastasis.

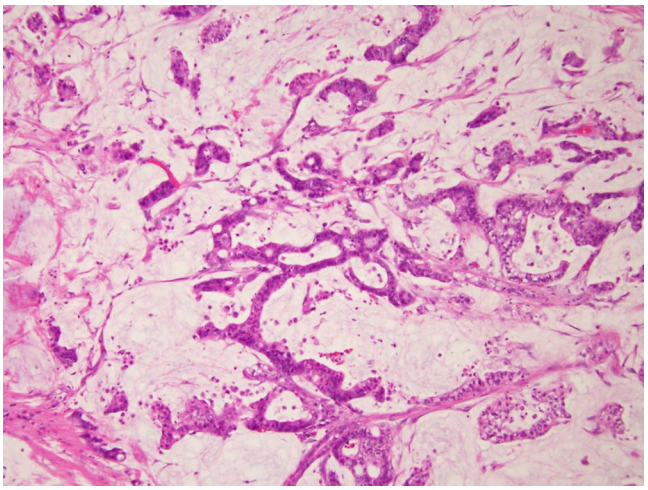

Fig. 4. Pancreatic metastasis.

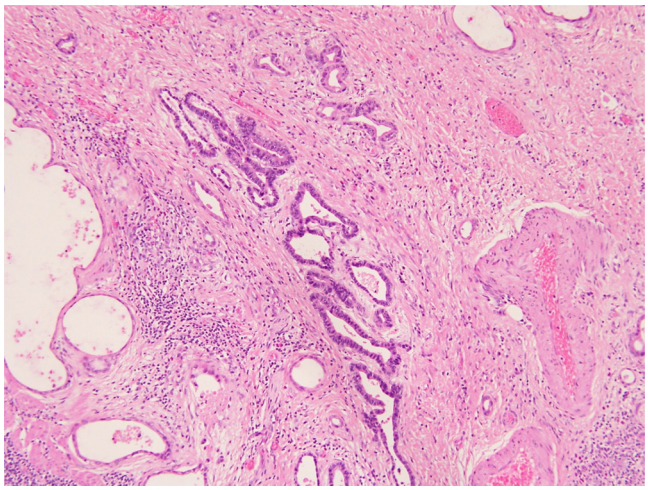

Fig. 5. Primary gastric adenocarcinoma.

Fig. 7. TRAM flap reconstruction post en bloc resection.

was excised in its entirety, along with a cuff of muscle. Margins were reported to be clear, with no evidence of lymphovascular or neural invasion. It was discussed at MDM and given the clear margins, it was thought that benefit from any further adjuvant treatment would be very minimal.

At 16 months post-metastectomy, he presented with recurrence at the previous excision site with CT scan raising suspicion of involvement of the hepatic flexure of the colon. Colonoscopy did not reveal mucosal involvement. The case was again discussed at the MDM and given the localised nature of the recurrence, was offered further excision. At laparotomy, the hepatic flexure was found to be involved with direct extension of the tumour form the abdominal wall. He underwent an enbloc resection of the skin/muscle/right hemicolectomy, with a Transverse rectus abdominis muscle (TRAM) flap transposed to ameliorate the abdominal wall defect. Histology confirmed this to be identical to both the original gastric adenocarcinoma and intramuscular nodule. He recovered uneventfully and was discharged on post operative day 7. He remains disease free 3 months post-second metastectomy (Figs. 5–7).

3. Discussion

In Western society, UGIT malignancy usually presents at a late stage. Outcomes and survival rates are uniformly poor.[1,2] The prognosis is further diminished in the presence of metastatic disease and the mainstay of treatment in Stage 4 disease has been palliation. Whilst there have been case series reported on resection of hepatic and, to a lesser degree, nodal metastases,[9] there has been very little published on the resection of isolated non-hepatic, non-nodal metastases.

Cases 1 and 2 highlight the potential role of metastectomy with a curative intent. The 30 month (patient 1) and 12 month (patient 2) disease-free period post-resection show that, at least in the short and intermediate term, it is a viable option in reasonably fit and healthy patients at least for isolated metastatic disease. Case 3 also showcases this, although to a lesser degree. Surgical resection has provided extended survival without compromising quality of life in these patients. The morbidity of surgery was very low. For the second resection in case number three multidisciplinary approach with plastic surgery input was invaluable. In short a careful consideration for surgical resection should be given to fit patients with isolated, metachronous non-hepatic metastases of oesophagogastric origin where an R_0 resection is deemed feasible. Port et al.[9] have shown that resecting isolated metastases in the UGIT setting led to an increase in median overall survival from 16.9% (chemotherapy) to 34.6%. There have been a few case reports documenting potential survival benefits post-metastectomy, namely in the chest wall,[10] small bowel,[11] thyroid[12] and skin.[13]

The long-term outcomes are not yet apparent in these cases and time and further follow-up will reveal whether this approach will be beneficial to the Stage 4 patients in the long run, or whether it merely represents another form of palliation.

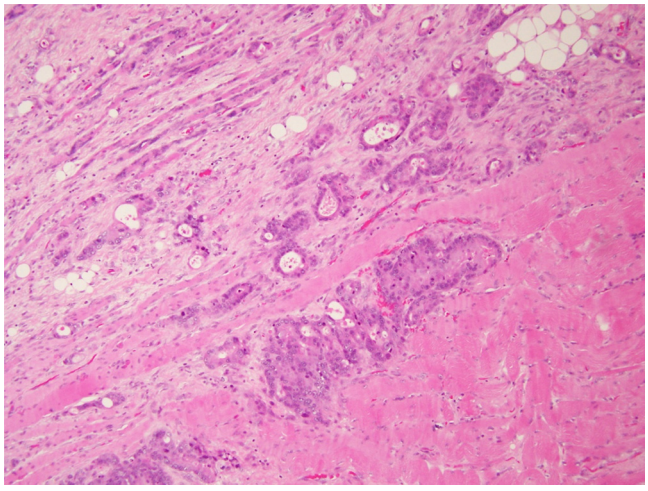

Fig. 6. Abdominal wall metastasis.

4. Conclusion

Resection for isolated metastasis from oesophagogastric cancers may be a viable option, especially if patients have minimal co-morbidities.

Conflicts of interest

The authors declare no conflicts of interest.

Funding

None.

Ethical approval

Written consent was obtained from all 3 patients and a copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Authors' contributions

AKKJ was involved in the design of the article, collected and analysed patient data, interpreted results, and wrote the article. ANL, MIT and HAK were involved in surgery, the collection of patient data and editing the article. HAK conceptualised the hypothesis for the article GJM reviewed the article. All authors read and approved the final manuscript.

References

1. Enzinger PC, Mayer RJ. Esophageal cancer. *N Engl J Med* 2003;**349**(23):2241–52.
2. Shahbaz SCM, Luketich JD, Landreneau RJ, Abbas G. Esophageal cancer: an update. *Int J Surg* 2010;**8**(6):417–22.
3. Ferlay J, Bray F, Pisani P, Parkin DM. *GLOBOCAN 2002 Cancer Incidence, mortality and prevalence worldwide, Version 2.0.IARC CancerBase no 5*. Lyon: IARC Press; 2004.
4. Australian Institute of Health Welfare. *Australian Cancer Database*; 2009.
5. Australian Institute of Health and Welfare (AIHW). *ACIM (Australian Cancer Incidence and Mortality) Books*. Canberra: AIHW; 2012.
6. Inoue M, Tsugane S. Epidemiology of gastric cancer in Japan. *Postgrad Med J* 2005;**81**:419–24.
7. Cunningham D, Allum WH, Stenning SP, Thompson JN, Van de Velde CJ, Nicolson M, et al. Perioperative chemotherapy versus surgery alone for resectable gastroesophageal cancer. *N Engl J Med* 2006;**355**(1):11–20.
8. Edge S, Byrd DR, Compton CC, Fritz AG, Greene FL, Trotti A. *AJCC Cancer Staging Manual*. 7th ed; 2010.
9. Port JL, Nasar A, Lee PC, Paul S, Stiles BM, Andrews W, et al. Definitive therapy for isolated oesophageal metastases prolongs survival. *Ann Thorac Surg* 2012;**94**(2):413–9.
10. Lindenmann J, Matzi V, Porubsky C, Maier A, Smolle-Juettner FM. Complete resection of an isolated chest wall metastasis from oesophageal carcinoma after transhiatal oesophagectomy and gastric pull-up at one and a half-year follow-up. *J Thorac Oncol* 2007;**2**(8):773–6.
11. Dasari BV, Lee J, Reid D, Carey D. Ileocaecal intussception due to isolated metastasis from primary oesophageal adenocarcinoma. *South Med J* 2009;**102**(4):419–21.
12. Chen H, Nicol TL, Udelsman R. Clinically significant, isolated metastatic disease to the thyroid gland. *World J Surg* 1999;**23**(2):177–80.
13. Segura HA, Perez-Fidalgo JA, López-Tendero P, Gironés Sarrió R, Aparicio Urtasun J. Thriteen years' survival in a patient with isolated skin metastases of a gastric carcinoma. What kind of disease is that? *An Med Interna* 2003;**20**(5):251–3.