

Enduring complete metabolic response in metastatic adenocarcinoma of the gastro-oesophageal junction

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We report on a 46-year-old gentleman who presented with a poorly differentiated invasive adenocarcinoma of the gastro-oesophageal junction, local lymph node involvement and bilobar liver metastases. Nearly 2 years after diagnosis, he has sustained complete metabolic response and remains in excellent clinical condition after treatment with chemoradiotherapy. Fluorodeoxyglucose positron emission tomography images at diagnosis and after treatment have been provided.

CASE REPORT

A 46-year-old Caucasian male presented to his primary care provider in August 2012 with epigastric discomfort and deranged liver function tests. Computed tomography (CT) of the chest and abdomen revealed bilobar liver lesions and gastroscopic biopsy confirmed a poorly differentiated invasive adenocarcinoma of the gastro-oesophageal junction (GOJ). Fluorodeoxyglucose positron emission tomography (FDG PET) (Fig. 1a) demonstrated intense uptake in the primary lesion, liver, gastrohepatic lymph nodes and right clavicle in the context of prior fracture.

He underwent four cycles of epirubicin, cisplatin and capecitabine (ECX) chemotherapy, which was well tolerated. Progress CT after cycle 4 revealed stable disease at GOJ and reduction in size of liver lesions. Given his good performance status, he received chemoradiotherapy to the primary site using 50.4 Gy in 28 fractions concurrent with twice daily capecitabine. Repeat FDG PET/CT 2 months after completion of chemoradiotherapy demonstrated resolution of hepatic lesions, but some persistent uptake in gastric lymph nodes and at the primary site. Repeat endoscopy 5 months post-completion showed reflux oesophagitis but no other mucosal abnormalities. Progress FDG PET/CT 12 months post-completion and 21 months after an initial diagnosis showed complete metabolic response (Fig. 1b). The patient remains clinically well 24 months after an initial diagnosis.

DISCUSSION

FDG PET/CT has been shown to be a superior technique for staging, response monitoring and detection of recurrence in oesophageal cancer, with recent interest into its use for prognostication [1]. Metastatic GOJ adenocarcinoma carries a poor prognosis. Even optimal chemotherapy regimens such as ECX only achieve response rates of 35% and median survival of 9–11 months [2, 3]. While chemoradiotherapy has shown promise in resectable tumours [4], its role in metastatic disease is less well defined. The enduring complete metabolic response approaching 2 years in this case illustrates potential benefit from a combined modality therapy strategy. The case argues for further research into predictive biomarkers to help determine selection of patients with metastatic GOJ cancer who may benefit from more aggressive treatment.

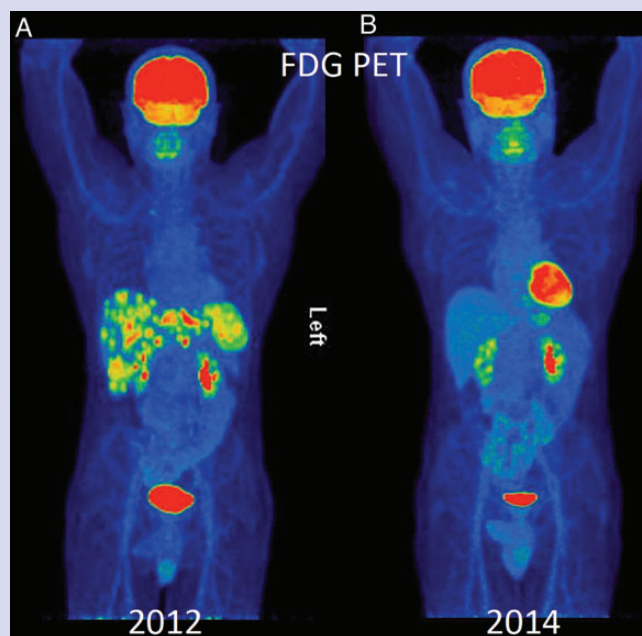


Figure 1: (A) FDG PET imaging at diagnosis with intense uptake in the primary, gastrohepatic lymph nodes, liver and mild uptake in right clavicle. (B) Complete metabolic response on PET 21 months later, following combined modality cancer therapy.

REFERENCES

1. Hatt M, Visvikis D, Albarghach N, Tixier F, Pradier O, Cheze-le Rest C. Prognostic value of 18F-FDG PET image-based parameters in oesophageal cancer and impact of tumour delineation methodology. *Eur J Nucl Med Mol Imaging* 2011;**38**:1191–202.
2. Cunningham D, Starling N, Rao S, Iveson T, Nicolson M, Coxon F, et al. Capecitabine and oxaliplatin for advanced esophagogastric cancer. *N Engl J Med* 2008;**358**:36–46.
3. Sumpter K, Harper-Wynne C, Cunningham D, Rao S, Tebbutt N, Norman AR, et al. Report of two protocol planned interim analyses in a randomised multicentre phase III study comparing capecitabine with fluorouracil and oxaliplatin with cisplatin in patients with advanced oesophagogastric cancer receiving ECF. *Br J Cancer* 2005;**92**:1976–83.
4. van Hagen P, Hulshof MC, van Lanschot JJ, Steyerberg EW, van Berge Henegouwen MI, Wijnhoven BP, et al. Preoperative chemoradiotherapy for esophageal or junctional cancer. *N Engl J Med* 2012;**366**:2074–84.

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