

# Brain metastasis from oesophageal adenocarcinoma

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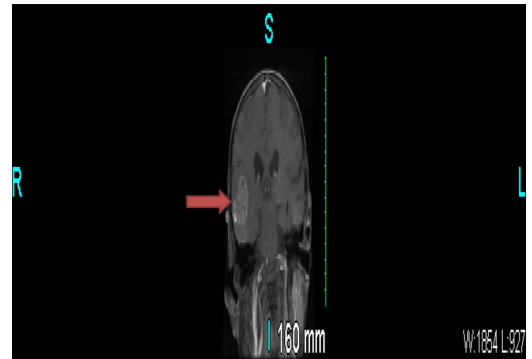
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## DESCRIPTION

A 74-year-old man with a medical history of hypertension, hypercholesterolaemia was diagnosed with distal oesophageal adenocarcinoma in June 2009. Prior to that the patient unintentionally lost 15 kg in 5 months and had difficulty swallowing both solids and liquids. An Oesophagectomy was performed, and he was subsequently treated with adjuvant chemotherapy including carboplatin, paclitaxel as well as radiation therapy.

In May 2012, positron emission tomography was performed which showed increased uptake in the left supraclavicular node and paraoesophageal nodes (T3N1M0). Biopsy was performed, which showed tumour recurrence, which was positive for human epidermal growth factor receptor 2 (HER-2) antigen. The patient was started on capecitabine, oxaliplatin and trastuzumab. The patient received five cycles only, because he developed diarrhoea, weight loss (common side effects of capecitabine) and cardiac dysfunction (common side effects of trastuzumab).

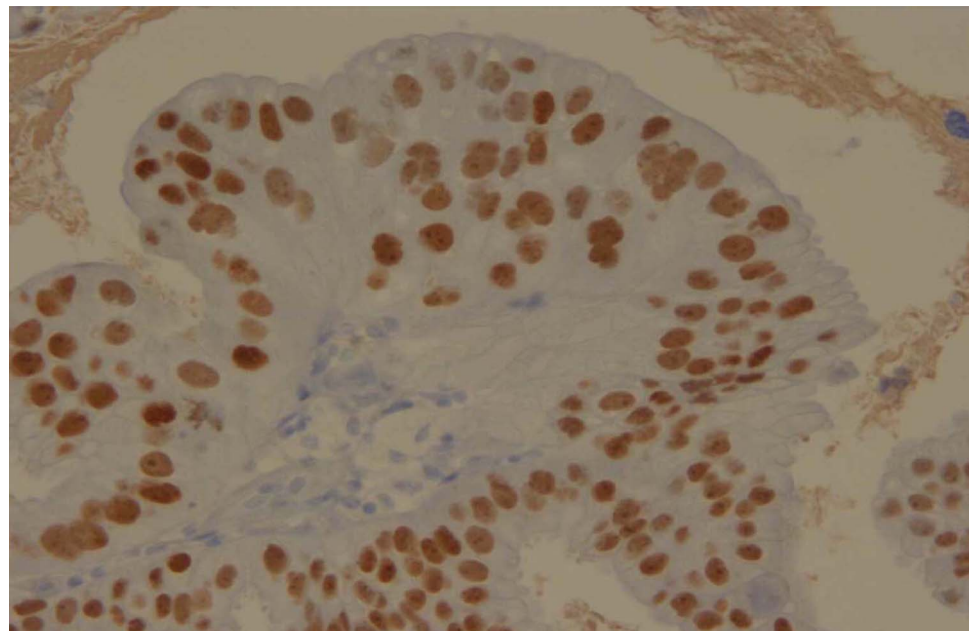
In January 2013, the patient presented to the emergency department with complaints of lethargy and confusion, with subsequent transfer to intensive care unit. Brain MRI revealed an intra-axial haemorrhagic mass in the right temporal lobe with extensive vasogenic oedema (figure 1). The mass was resected, and it stained positive for CDX2, consistent with primary metastatic oesophageal adenocarcinoma (figure 2). Patient was scheduled for whole brain radiation therapy (WBRT) but became septic secondary to pneumonia while in the



**Figure 1** Intra-axial haemorrhagic mass in the right temporal lobe.

hospital. The patient was started on intravenous hydration and norepinephrine drip. Piperacillin-tazobactam, levofloxacin and vancomycin were started. Blood cultures were negative. The patient remained on blood pressure support until his family decided to discontinue the treatment. The patient was enrolled in hospice care.

Oesophageal adenocarcinoma is a common cancer with an estimated 17 990 new cases and 15 210 new oesophageal cancer-related deaths in 2013.<sup>1</sup> Oesophageal adenocarcinoma most commonly affects the distal oesophagus and is common among people of Caucasian descent.<sup>2</sup> The death rates are high, approaching >75% at 5 years after diagnosis.<sup>2</sup> Distant metastasis to the liver, lungs, adrenals and bones has been reported.<sup>3</sup> However,



**Figure 2** Brain biopsy consistent with metastatic oesophageal adenocarcinoma.

**To cite:** Nwankwo N, Mirrakhimov AE, Wind KP, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2013-009395

distant metastasis to the brain is a rare finding with about 100 reported cases.<sup>4</sup> This is likely because brain imaging is usually not performed in asymptomatic patients. Improved survival was noted in patients with single lesions who underwent resection and WBRT.<sup>5</sup>

In conclusion, oesophageal cancer though rarely found in the brain, can be treated if detected early.

### Learning points

- ▶ Oesophageal adenocarcinoma is a gastrointestinal common cancer.
- ▶ Adrenal glands, bones, lungs and liver are the common distant metastatic sites of oesophageal adenocarcinoma.
- ▶ Brain metastases are rare in patients with oesophageal adenocarcinoma.
- ▶ Whole brain radiation therapy and resection (if the lesion is focal) were reported to be of clinical benefit in patients with oesophageal adenocarcinoma and brain metastases.

**Contributors** Each author contributed equally to this manuscript.

**Competing interests** None.

**Patient consent** Obtained.

**Provenance and peer review** Not commissioned; externally peer reviewed.

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