

Eight-year survival with metastatic oesophageal carcinoma: a case report and review of the literature

H Kasai,¹  W Begg,²  M Mihalik^{3,4} 

¹ Department of General Surgery, Paarl Hospital, South Africa

² Department of Oncology, Tygerberg Hospital, South Africa

³ Department of General Surgery, New Somerset Hospital, South Africa

⁴ Department of General Surgery, Groote Schuur Hospital, South Africa

Corresponding author, email: hideakikasai8@gmail.com

Summary

Oesophageal cancer is common and holds a poor prognosis, with an estimated 604 000 new cases in 2020 and 544 000 deaths globally. South Africa has an incidence of 4.41 and 2.39 new cases of oesophageal cancer per 100 000 males and females respectively, with up to 95% predominance of squamous cell carcinoma (SCC). Five-year survival in patients with distant metastasis is less than 5%. We present a remarkable case of a patient with metastatic oesophageal SCC who survived eight years post-palliative chemotherapy despite being lost to follow-up.

Keywords: oesophageal cancer, metastatic disease, palliative stent, palliative chemotherapy, long-term survival

Case report

A 40-year-old male presented with symptoms of dysphagia to solids, loss of weight, chronic cough and post-prandial vomiting. The patient claimed to have been treated for "lung cancer" many years ago, which prompted imaging to assess for recurrence of pulmonary disease. A computerised tomography (CT) scan of his chest showed a suspicious long segment oesophageal thickening with associated oesophageal-pulmonary fistula and multiple mediastinal lymph nodes. A moth-eaten manubrium and signs of an oesophageal bronchial fistula were also evident (Figure 1). The patient underwent careful endoscopy which revealed an oesophageal tumour at 30 cm from the incisors and a suspected tracheoesophageal fistula, with an inability to enter the oesophageal-gastric junction. The biopsies taken confirmed oesophageal squamous cell carcinoma (SCC).

On further history, the patient revealed that he had been treated eight years previously for complete dysphagia to solids and liquids. Hospital records pertaining to that admission were retrieved. These revealed that an upper endoscopy at the time showed a gastroesophageal tumour which was confirmed to be a non-keratinising SCC. A staging CT scan had shown an oesophageal tumour extending from the level of the 9th-11th thoracic vertebrae with necrotic mediastinal lymph nodes and liver metastases in segment 8. He received a palliative oesophageal stent and completed six cycles of chemotherapy with cisplatin and 5-fluorouracil (FU). A follow-up CT scan was performed six months later to evaluate response to chemotherapy and showed a distal oesophageal and oesophageal-gastric

junction thickening, a migrated stent and subcarinal lymph nodes. The posterior manubrium was disrupted and moth-eaten suggesting metastases, but there were no liver lesions. There were unfortunately no subsequent clinical notes found, and it appears that the patient was lost to follow-up until he represented to us eight years later.

During this admission, fluoroscopy in conjunction with the CT scan confirmed a right oesophageal-bronchial fistula

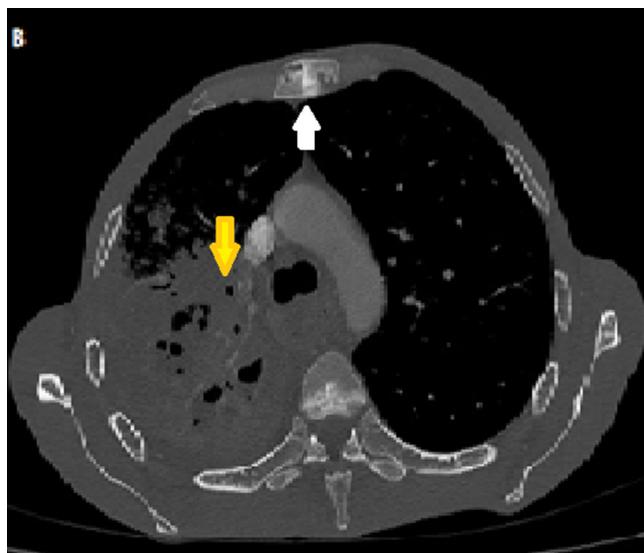


Figure 1: An axial chest CT eight years later, showing the moth-eaten manubrium (white arrow) and signs of an oesophageal bronchial fistula (yellow arrow)

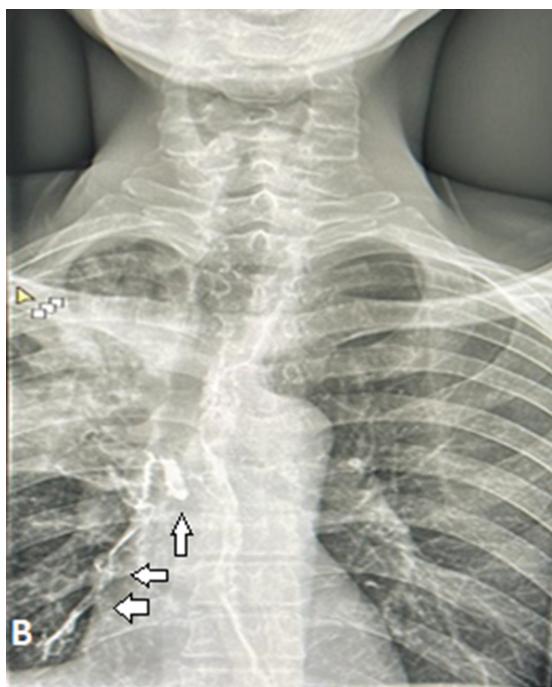


Figure 2: Fluoroscopy confirming a right oesophageal bronchial fistula (white arrows)

(Figure 2), and he underwent repeat oesophageal stenting. He was able to tolerate clear fluids on discharge and was referred for further palliative care. Unfortunately, he died a few months later.

Discussion

Oesophageal cancer ranks 7th in incidence and 6th in mortality, and has a mortality-to-incidence ratio of 90.1% globally.¹ The two most common cell types are SCC and adenocarcinoma.² The incidence in parts of South Africa is reported to be as high as 25 and 15 per 100 000 cases in males and females respectively, with a 95% predominance of SCC over adenocarcinoma.³ The negative prognostic factors that impact overall survival include: malnutrition, body mass index (BMI) > 30, male sex, tumour location in the upper third of the oesophagus, SCC histological type and advanced tumour stage.⁴ Patients who present with distant metastasis at the time of diagnosis have a five-year survival of less than 5%.⁵ South African data reports a one-year survival of 1–11%.³ Our patient has survived for eight years with distant metastases. This could be attributed to his ability to swallow food which may have inherently improved his metabolic and nutritional status.

Palliative stenting allows for continued oral nutrition, improved metabolic status, and quality of life. It also provides for subsequent therapy, like chemotherapy, to be continued.⁶ An improved metabolic and nutritional status may allow for better tolerability of chemotherapy and its effects. Also, patients with a stent will be able to swallow oral medication to minimise the side effects of chemotherapy.

Our patient received cisplatin and 5-FU, which is the most widely used combination chemotherapy regimen for palliative chemotherapy.⁷ This has shown to have a response rate of 33–37.2% with a median survival time of 201.5–312 days.⁸ Our patient received six cycles of cisplatin and 5-FU with a clearly remarkable outcome. With the development of novel targeted therapies, which target the relevant pathways,

such as SOX2, affecting the lineage-survival of malignant cells, it will be interesting to see how the guidelines for the management of oesophageal SCC may change based on survival outcomes.⁹

There have been cases of long-term survival in patients with metastatic oesophageal cancer when treated aggressively with chemoradiotherapy and/or surgical resection. Picket et al.¹⁰ reported a patient with metastatic oesophageal SCC who survived 11.4 months after their initial chemoradiotherapy. Subsequent metastatic disease was treated with stereotactic radiotherapy and the patient survived a total of 47.9 months after the diagnosis.¹⁰ Longer survival of up to 83.3 months has been reported in a patient with metastatic adenocarcinoma, who received neoadjuvant chemoradiotherapy prior to radical resection and chemotherapy for subsequent recurrence.¹⁰ The data for long-term survival in patients with metastatic oesophageal SCC treated solely with palliative chemotherapy is lacking. This case illustrates the value of individualised risk stratification and cancer therapy. Despite our patient's multiple poor prognostic factors, i.e. male gender, malnourished and the advanced metastatic SCC, he managed to survive eight years after initial palliative chemotherapy and stent placement. Unfortunately, his subsequent loss to follow-up also highlights the socioeconomic challenges that patients face in a South African context.

Conflict of interest

The authors declare no conflict of interest.

Funding source

No funding source to be declared.

Ethical approval

The authors declare that this submission is in accordance with the principles laid down by the Responsible Research Publication Position Statements as developed at the 2nd World Conference on Research Integrity in Singapore, 2010. Informed written consent was obtained from the patient in the study.

ORCID

H Kasai  <https://orcid.org/0000-0002-9742-6731>
 W Begg  <https://orcid.org/0000-0003-3992-5417>
 M Mihalik  <https://orcid.org/0000-0002-5852-6457>

REFERENCES

1. Sung H, Ferlay J, Siegel RL, et al. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. *CA Cancer J Clin.* 2021;71(3):209-49. <https://doi.org/10.3322/caac.21660>.
2. Asomban AW, Chishinga N, Nkhoma A, et al. Systematic review and meta-analysis of oesophageal cancer in Africa: epidemiology, risk factors, management and outcomes. *World J Gastroenterol.* 2019;25(31):4512-33. <https://doi.org/10.3748/wjg.v25.i31.4512>.
3. Ferndale L, Aldous C. Oesophageal cancer in South Africa. A scoping review. *S Afr J Oncol.* 2022;6(1):1-9. <https://doi.org/10.4102/sajo.v6i1.217>.
4. Vendrely V, Launay V, Najah H, et al. Prognostic factors in oesophageal cancer treated with curative intent. *Dig Liver Dis.* 2018;50(10):991-6. <https://doi.org/10.1016/j.dld.2018.08.002>.

5. Jamel S, Tukanova K, Markar SR. Detection and management of oligometastatic disease in oesophageal cancer and identification of prognostic factors: a systematic review. *World J Gastrointest Oncol.* 2019;11(9):741-9. <https://doi.org/10.4251/wjgo.v11.i9.741>.
6. Włodarczyk J, Kuzdzal J. Stenting in palliation of unresectable oesophageal cancer. *World J Surg.* 2018;42(12):3988-96. <https://doi.org/10.1007/s00268-018-4722-7>.
7. Behrens A, Ell C, Lordick F. Perioperative and palliative chemotherapy for oesophageal cancer. *Visz Gastrointest Med Surg.* 2015;31(5):341-6. <https://doi.org/10.1159/000438470>.
8. Hiramoto S, Kato K, Shoji H, et al. A retrospective analysis of 5-fluorouracil plus cisplatin as first-line chemotherapy in the recent treatment strategy for patients with metastatic or recurrent oesophageal squamous cell carcinoma. *Int J Clin Oncol.* 2018;23(3):466-72. <https://doi.org/10.1007/s10147-018-1239-x>.
9. Liu Y, Xiong Z, Beasley A, D'Amico T, Chen XL. Personalised and targeted therapy of oesophageal squamous cell carcinoma: an update. *Ann N Y Acad Sci.* 2016;1381(1):66-73. <https://doi.org/10.1111/nyas.13144>.
10. Pickett L, Dunne M, Monaghan O, et al. Oesophageal cancer metastases: an observational study of a more aggressive approach. *World J Gastrointest Surg.* 2022;14(9):997-1007. <https://doi.org/10.4240/wjgs.v14.i9.997>.