

CASE STUDY

TRANS-HIATAL OESOPHAGECTOMY IN AN AIDS PATIENT

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A 49-year-old man was diagnosed as HIV infected, with a CD4 count of 60 cells/ μ l. He was started on an antiretroviral treatment regimen comprising zidovudine, lamivudine and efavirenz. Following treatment, his CD4 count improved and the viral load was undetectable. He was subsequently found to have a moderately differentiated adenocarcinoma of the lower oesophagus.

CASE STUDY

A 49-year-old male security supervisor was admitted to hospital with recurrent chest infections. He was found to be HIV positive with a CD4 count of 60 cells/ μ l, and was started on an antiretroviral treatment regimen comprising zidovudine, lamivudine and efavirenz. Six months later the absolute CD4 count had increased to 249 cells/ μ l and the viral load was undetectable.

Nine months after initial HIV diagnosis the patient complained of progressive dysphagia for solids for 2 months and a weight loss of 5 kg during the same period. He denied loss of appetite, haematemesis or symptoms of gastro-oesophageal reflux disease. He weighed 76 kg with a body mass index of 25.9.

Clinical examination was unremarkable, with no evidence of an abdominal mass, hepatomegaly or left supraclavicular lymph nodes. Upper gastro-intestinal endoscopy showed a polypoidal growth of the abdominal oesophagus. There was no evidence of candidal oesophagitis. Histological examination revealed a moderately differentiated adenocarcinoma. A computed tomography (CT) scan showed a T2 tumour with no evidence of regional lymph node enlargement or hepatic metastases.

The patient underwent trans-hiatal oesophagectomy with a cervical oesophago-gastric anastomosis. A jejunostomy feeding tube was placed at the time of surgery in view of his dysphagia and poor oral intake. Three days after surgery, he developed a lower respiratory tract infection which was treated with intravenous co-amoxiclavulanic acid. He responded to treatment and was discharged on the 11th postoperative day. Histological examination showed a moderately differentiated adenocarcinoma with involvement of the para-oesophageal and left gastric lymph nodes. The feeding jejunostomy was removed.

The patient received an adjuvant regimen of two cycles of chemotherapy (5-fluorouracil 1 g/m² and cisplatin 100 mg/m²) and concurrent local radiotherapy (45 Gy). Twelve weeks after the conclusion of his treatment course, a repeat CT scan of the chest and abdomen showed significant tumour regression and no evidence of metastatic disease. He was able to return to his occupation, and his quality of life was not affected.

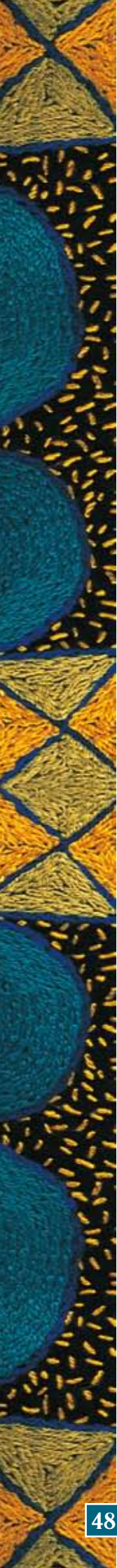
At 2 months' follow-up the patient's absolute CD4 count had decreased to 117 cells/ μ l. At 6 months it had risen to 211/ μ l. He continued on antiretroviral therapy, but died of metastatic disease and opportunistic infections 16 months after surgery.

DISCUSSION

The commonest cause of dysphagia in patients with AIDS is candidal oesophagitis. Cytomegalovirus oesophagitis is less frequently seen.¹ Because oesophagitis is a common complaint in this group of patients, heightened awareness of the risk of malignancy and a low threshold for upper gastro-intestinal endoscopy are necessary to avoid a delay in diagnosis. Our patient was free of oesophagitis, and his symptoms were suggestive of mechanical oesophageal obstruction.

Oesophageal adenocarcinoma in HIV/AIDS has been reported, but very few of these patients have undergone a potentially curative resection.²⁻⁴

Demographic analysis of HIV/AIDS patients with oesophageal carcinoma is not possible owing to the paucity of reported cases. It is likely that improved survival in these patients has permitted the development of other disease processes. It is also possible that the immunosuppression associated with HIV/AIDS puts them at a higher risk of developing oesophageal cancer.



The impact of oesophageal cancer surgery, in terms of postoperative survival as well as quality of life, is still largely unknown. Clinical experience and the scarce existing literature both suggest that these patients find it difficult to return to their previous lifestyles and social activities, not just owing to the problems common to all malignant tumours but because of the specific dietary and digestive disturbances resulting from oesophageal cancer therapy.⁵ Our patient was able to eat a normal diet and return to work and to his original lifestyle within 1 month after surgery.

The impact of oesophageal cancer and its treatment on survival in AIDS patients can only be ascertained with long-term follow-up. However, the recent improvement in life expectancy in AIDS patients means that oesophageal malignancies should be treated aggressively to ensure maximal survival in this challenging subgroup.

The treatment of HIV infection has undergone considerable change. When used as part of combination drug regimens, protease inhibitors and non-nucleoside reverse transcriptase inhibitors can profoundly suppress

viral replication, with consequent repletion of CD4 cell counts.⁶ Our patient responded well to antiretroviral therapy, both before diagnosis and after treatment of his oesophageal cancer.

Pre-operative status and co-morbidity are strong predictors of outcome. The prognosis for oesophageal carcinoma varies depending on the stage at presentation. A 2005 study showed 5-year survival rates of around 67% for resectable stage 0 - 1 oesophageal cancer, 33% for stage 2, and 8% for stage 3.⁷

REFERENCES

1. Ilcox CM. Esophageal disease in the acquired immunodeficiency syndrome: etiology, diagnosis, and management. *Am J Med* 1992;92(4):412-421.
2. Chalasani N, Parker K, Wilcox CM. Barrett's adenocarcinoma in a patient with acquired immune deficiency syndrome. *J Clin Gastroenterol* 1997;24(3):184-191.
3. Botha A, Kochhar S. Laparoscopic-assisted oesophagectomy for adenocarcinoma in an AIDS patient. *Br J Hosp Med (Lond)* 2006;67(6):324-325.
4. Issa RA, Podbielski FJ, Fontaine JP, Connolly AE, Walsh WV, Fraire AE. Esophagectomy in a patient with AIDS. *Dis Esophagus* 2004;17(3):270-272.
5. Magrone G, Bozzone A, Romanelli A, et al. Rehabilitation and quality of life in patients undergoing surgery for esophageal cancer. *Rays* 2006;31(1):13-16.
6. Hogg RS, Heath KV, Yip B, et al. Improved survival among HIV infected individuals following initiation of antiretroviral therapy. *JAMA* 1998;279(6):450-454.
7. Rouvelas I, Zeng W, Lindblad M, et al. Survival after surgery for oesophageal cancer: a population-based study. *Lancet Oncol* 2005;6(11):864-870.