

count (234 mm^3). In November 1994, when she was 35 years of age, she presented a left breast mass classified as T2N1b. She underwent a modified radical mastectomy. Microscopic examination revealed a poorly differentiated ductal carcinoma and 8 positive nodes out of 8. The patient received radiotherapy which was well tolerated and completed six courses of FUN with reduced doses of 5-FU. There was no major toxicity and the CD4 count remained stable (160 mm^3). Six weeks after completion of adjuvant chemotherapy, she developed carcinomatous meningitis and one month later bone marrow involvement. She died in August 1995, 10 months after diagnosis.

Both our patients were diagnosed with poor prognosis breast cancer at a young age when they were still asymptomatic for HIV infection. Chemotherapy was feasible and quite well tolerated. Both patients had a very early metastatic recurrence after completion of adjuvant treatment, and the clinical pattern for the second case (isolated meningitis first) was very unusual.

Our observation, as some have previously reported [1], suggests that HIV associated breast cancer may have atypical characteristics, such as occurrence at earlier age, marked aggressiveness and unusual behaviour.

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PII: S0959-8049(96)00408-X

Intramedullary Spinal Cord Metastasis from Carcinoma of the Lung: Detection by Positron Emission Tomography

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INTRAMEDULLARY METASTASIS to the spinal cord is uncommon and often difficult to diagnose. We report a patient in whom an asymptomatic intramedullary metastasis was diagnosed by positron emission tomography. A 59-year old man with a moderately well-differentiated squamous cell carcinoma involving the left main bronchus, without evidence of disseminated disease, was treated initially by left pneumonectomy. He was well for 11 months, but then developed persistent right upper quadrant abdominal discomfort and occasional right shoulder tip pain. Abdominal computed tomography demonstrated a large, low-density, poorly margined area in the right lobe of the liver, and metastatic squamous cell carcinoma was confirmed by fine-needle aspiration biopsy.

Treatment with regional chemotherapy via the hepatic artery was planned, but prior to this whole body fluorodeoxyglucose positron emission tomography (FDG PET) scanning was performed. Neurological examination at the time of the PET scan was normal. FDG PET demonstrated a focus of markedly increased tracer uptake in the upper neck, as well as increased uptake in the liver metastasis (Figure 1a). Magnetic resonance (MR) imaging of the region revealed an expanding, dorsally situated intramedullary spinal cord lesion at the C2–C3 level (Figure 1b). The cervical intramedullary metastasis was treated with radiotherapy and the hepatic metastasis with regional infusion chemotherapy via the hepatic artery.

PET differs from conventional imaging techniques in that it measures metabolic activity in tissues using short-lived radiotracers. Thus, PET demonstrates physiological and biochemical function rather than anatomical detail as demonstrated by computed tomography or MR imaging.

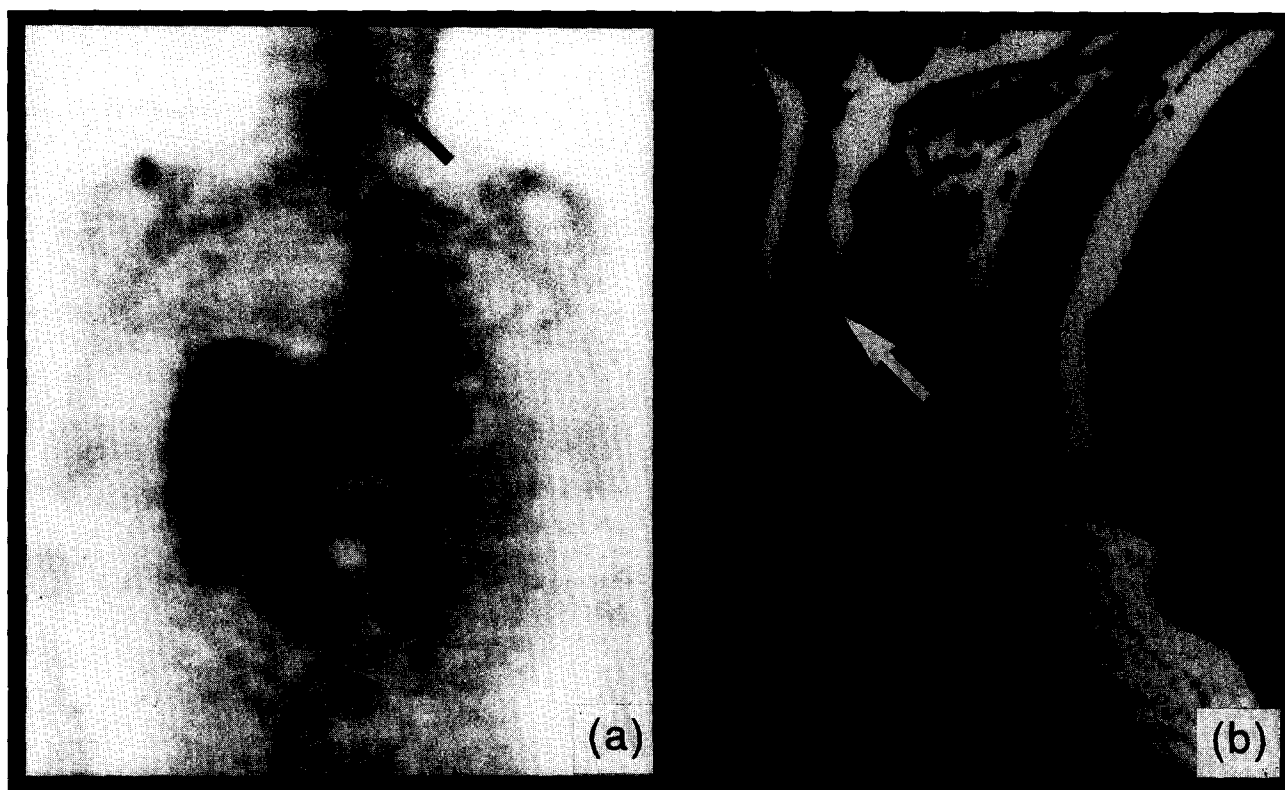


Figure 1. (a) Coronal FDG PET image showing a metastatic tumour focus in the neck (arrowed), a large cavitating tumour deposit in the liver, and normal bilateral renal concentration of tracer. (b) Sagittal MR image revealing the cervical metastasis to be an intramedullary deposit (arrowed) in the cervical spinal cord.

This capability makes PET a useful tool in tumour evaluation because tumour tissue is metabolically more active than normal tissue. FDG PET has been found to be sensitive in the detection and staging of carcinoma of the lung [1, 2].

Intramedullary spinal cord metastases are extremely rare and account for only 1.3% of all spinal metastases [3]. Historically, intramedullary metastases are difficult to demonstrate radiologically [4], even in clinically symptomatic patients, but MR imaging has made evaluation easier [5]. To our knowledge, the detection of an asymptomatic intramedullary spinal cord metastasis has not previously been reported. The early identification of this patient's metastasis by FDG PET, subsequently confirmed by MR imaging, enabled treatment to be given prior to the development of neurological symptoms. The detection of an unexpected metastasis at an unusual site with FDG PET demonstrates its usefulness in the detection of metastatic disease.

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European Journal of Cancer Vol. 33, No. 3, pp. 509-510, 1997
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 Printed in Great Britain
 0959-8049/97 \$17.00 + 0.00

PII: S0959-8049(96)00433-9

Primary Mediastinal Seminoma

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PRIMARY MEDIASTINAL seminoma is a rare malignant entity, histologically identical to its gonadal counterpart, and

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Received 16 May 1996; revised 1 Oct. 1996; accepted 14 Oct. 1996.