

## Spontaneous expectoration of lung tumour mass

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A 57-year-old man noticed a painless bluish mass enlarging on top of his right foot. Fine-needle aspiration and excisional biopsy showed a high-grade giant-cell variant of malignant fibrous histiocytoma. Because he had recurrence of the tumour at

the initial excision site within 2 months, the patient opted for below-knee amputation without adjuvant radiation therapy. The surgical resection margins were free of tumour cells.

Unfortunately, the patient had increasing shortness of breath on exertion within 4 months after amputation. A chest CT showed bilateral pulmonary nodules consistent with metastases. He was admitted to hospital 5 months after the onset of shortness of breath for anthracycline-based chemotherapy. However, his left ventricular ejection fraction decreased, and therapy was switched to an ifosfamide-based regimen. Despite this, serial imaging showed enlarging nodules in the lung (Fig. 1 and Fig. 2), and hemoptysis developed 16 months after the start of chemotherapy. Along with bright red blood, the patient coughed up solid masses up to 5 cm in length (Fig. 3). Biopsy of the expectorated masses confirmed the radiologic diagnosis of metastatic malignant fibrous histiocytoma to the lung. The patient died in hospital within 2 months after the onset of hemoptysis.

Malignant fibrous histiocytoma is the most common soft-tissue sarcoma in adults,<sup>1</sup> occurring most often in the lower extremities. The tumour contains both histiocyte and fibroblast-like cells. There are many histologic subtypes, around which there are controversies in the literature. Variants include fibrous, giant-cell, myxoid and inflammatory.<sup>2</sup> The lung is the most common site of distant metastasis. Conservation surgery striving for nega-

tive margins along with adjuvant radiation therapy is the treatment of choice for local disease.<sup>1</sup> Distant metastasis, larger primary tumour (> 5 cm) and high-grade tumour are all negative prognostic factors.<sup>3</sup>

Originally described by Mackenzie in 1886,<sup>4</sup> expectoration of large fragments of lung tumour is rare.<sup>5</sup> It has been described in cases of endobronchial primary lung cancer and metastases from renal cell and colon carcinomas, osteogenic sarcoma and malignant melanomas.<sup>5</sup> More recently in the era of AIDS, coughing up sections of tumour has been seen in patients with Kaposi's sarcoma and lymphoma.<sup>6</sup> Spontaneous expectoration of metastatic malignant fibrous histiocytoma is exceptionally rare.

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