An unusual cause of an incidental lung mass

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A 52-year-old woman was found to have a mass measuring 1 cm in diameter with radiographic features of a carcinoid tumour in the left lung during work-up for chest pain. Wedge excision of the lesion revealed a leiomyoma that had a similar histological appearance to uterine ‘fibroids’ removed eight years previously. This case is an example of benign metastasizing leiomyoma, an unusual lesion of uncertain etiopathogenesis.

Key Words: Carcinoid; Leiomyoma; Lung mass

Figure 1) Computed tomography scan showing mass (arrow) in lingula (A) that showed radioenhancement after intravenous injection of contrast material (B)

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rhinitis, hypercholesterolemia, a benign thyroid nodule and a hysterectomy eight years previously for uterine ‘fibroids’. Her medications included enteric-coated acetylsalicylic acid, ramipril, atenolol, atorvastatin, premarin, mometasone furoate monohydrate (Nasonex, Schering, USA), and vitamin and mineral supplements.

Physical examination revealed a regular pulse of 60 beats/min and a blood pressure of 122/82 mmHg; the remainder of the physical examination was unremarkable. Results of routine blood work and pulmonary function tests were within normal limits. Chest x-ray showed a well circumscribed, noncalcified nodule, 1 cm in diameter, in the midportion of the left lung. Computed tomography scan localized the lesion to the lingula, and the lesion showed enhanced radiodensity after injection of intravenous contrast material, consistent with a carcinoid tumour (Figure 1). There was no hilar or mediastinal lymphadenopathy, and the liver and adrenal glands had a normal radiographic appearance.

Histopathological examination of the surgically excised lesion (Figure 2) revealed that it had a similar appearance to the uterine leiomyoma removed eight years previously (Figure 3).

DISCUSSION
Benign metastasizing leiomyoma (BML) is a rare condition, characterized by the occurrence of one or more smooth muscle nodules, most often located in the lung, after previous hysterectomy for histologically benign-appearing leiomyoma. There are two predominant theories regarding the origin of BML: metastasis from an existing leiomyoma; or multicentric leiomyomatous growths rather than actual metastases (1). In a recent study of a woman with BML, results of comparative genomic hybridization and X chromosome inactivation revealed monoclonality between the patient’s uterine and pulmonary smooth muscle tumours, consistent with the pulmonary lesions being metastatic (2). BML can be considered a slow-growing variant of leiomyosarcoma of the uterus, which becomes clinically apparent at a young age and progresses slowly (3). Although it is biologically peculiar, BML should continue to be recognized as a distinct entity, because current histopathological criteria do not allow primary uterine smooth muscle tumours to be reclassified, even after documentation of pulmonary metastasis (4).

REFERENCES