Isolated colorectal mediastinal metastasis

Case history
A 52-year-old man was referred for endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) having been found to have isolated asymptomatic right paratracheal adenopathy. He had previously had a sigmoid colectomy in 2008 for Dukes B carcinoma (pathological staging pT3 N0). One year later, he was found to have a lesion in the right lobe of the liver, which was successfully downsized with chemotherapy and resected. Subsequent serial follow-up computed tomography scans identified an enlarging isolated right 20 mm paratracheal node in the mediastinum 3 years after the initial diagnosis (Figure 1). The only other abnormality detected was 24 mm para-aortic adenopathy. In view of the patient’s history and excellent functional performance status, tissue was required to facilitate oncological assessment (assuming recurrent mediastinal disease was diagnosed). EBUS-TBNA was, therefore, performed on the right paratracheal node using a 21-gauge needle as described previously.1 Histology of the small tissue cores confirmed (Figure 2A–C) strong expression of cytokeratin (CK) 20 and was negative for thyroid transcription factor (TTF)-1 and CK7 confirming metastatic adenocarcinoma in keeping with a primary colorectal tumour. The patient was referred to oncology for further management.

Colorectal tumours rarely metastasize to a single mediastinal lymph node in isolation (pulmonary, endobronchial and multiple mediastinal metastases are, however, well recognized2,3), and this case highlights the importance of considering this as a potential site with follow-up scanning. A previous case has been described of a solitary mediastinal lymph node metastasis, which was confirmed by mediastinoscopy.4 Spread from abdominal lymph nodes through the paravertebral plexus has also been described.5 This case also highlights the utility

![Computed tomography scan showing paratracheal node with mediastinal fat layer between node and tracheobronchial tree.](image)

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of EBUS-TBNA as a minimally invasive diagnostic tool in this circumstance. The major advantage of using this technique over mediastinoscopy is avoidance of a general anaesthetic (using conscious sedation) and the low risk of serious complications by real-time sampling while providing adequate tissue (especially with a 21-gauge needle) for immunohistochemistry and real-time sampling under ultrasound. In our patient, the only alternative approach for confirming the diagnosis would have been by surgical mediastinoscopy or laparoscopy (for the para-aortic nodes).

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References


Figures 2. Histology showing adenocarcinoma with strong expression of CK20 (A), negative expression for TTF-1 (B) and negative expression for CK7 (C).