



Case report

Recurrent breast cancer and endobronchial ultrasound-transbronchial needle aspiration

Helmy Haja Mydin*, David Miller, Mahendran Chetty, Graeme P. Currie

Department of Respiratory Medicine, Aberdeen Royal Infirmary, Foresterhill, Aberdeen AB25 2ZN, United Kingdom

ARTICLE INFO

Article history:

Received 15 November 2011

Accepted 28 November 2011

Keywords:

Breast cancer

Endobronchial ultrasound-transbronchial
needle aspiration

Lymphadenopathy

ABSTRACT

A 67 years old female with previous breast cancer and a 40-pack year smoking history presented with recurrent lower respiratory tract infections on a background of chronic obstructive pulmonary disease.

Despite a normal chest X-ray, the history of recurrent infections led to a high resolution computed tomography scan to exclude structural lung disease. This showed subcarinal lymphadenopathy, multiple nodules in the right lung and suggestion of lymphangitis. She proceeded to have EBUS-TBNA of the enlarged paratracheal and subcarinal lymph nodes. Cytology was consistent with the diagnosis of recurrent metastatic breast carcinoma. The patient went on to receive Letrozole and radiotherapy.

EBUS-TBNA is typically used to both diagnose and stage suspected lung cancer, usually in a solitary procedure. However, it is also useful in patients with undiagnosed mediastinal and hilar lymphadenopathy. This case adds to the paucity of literature whereby EBUS-TBNA was used as a quick and effective tool by which recurrent breast cancer was diagnosed.

© 2011 Elsevier Ltd. All rights reserved.

Endobronchial ultrasound-transbronchial needle aspiration (EBUS-TBNA) is an increasingly popular investigation usually performed by chest physicians whereby enlarged mediastinal and hilar lymph nodes can be safely sampled under direct vision.¹ It is usually performed under light sedation as a day case procedure and takes approximately 20 min. EBUS-TBNA involves the use of a specialised ultrasound transducer integrated into a flexible fiberoptic bronchoscope which facilitates multiple biopsies to be taken under direct vision. Doing so obviates many of the problems and issues associated with mediastinoscopy such as need for an inpatient stay, a neckline scar, risks of nosocomial infection and it has a smaller mortality rate. We present a case whereby recurrent breast cancer was diagnosed using this technique.

A 67 years old female with a 40-pack-year smoking history presented with recurrent lower respiratory tract infections on a background of chronic obstructive pulmonary disease. Past medical history included left breast grade 2 invasive ductal carcinoma (T2 N1 (2 of 12) M0; ER8, PR6, Her-2 negative) eight years previously. Treatment consisted of chemotherapy prior to surgical excision, radiotherapy and Tamoxifen. Despite a normal chest X-ray, the history of recurrent infections led to a high resolution computed tomography scan to exclude structural lung disease. This

showed subcarinal lymphadenopathy (Fig. 1), multiple nodules in the right lung and suggestion of lymphangitis.

She proceeded to have EBUS-TBNA of the enlarged paratracheal and subcarinal lymph nodes. Cytology demonstrated malignant cells which were strongly ER positive and TTF1 negative, consistent

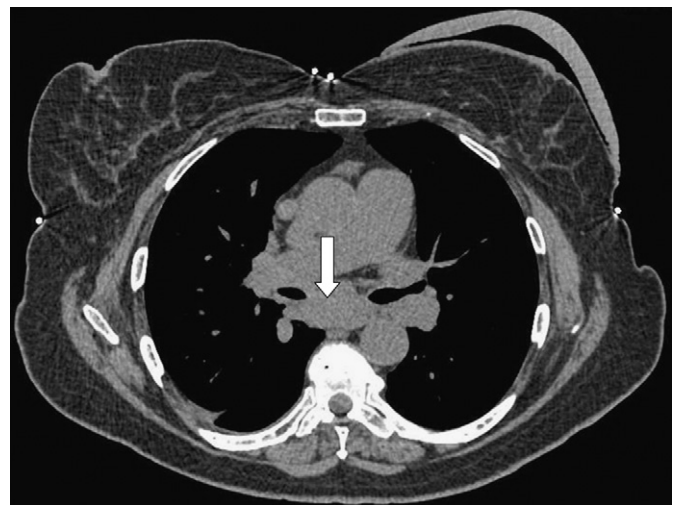


Fig. 1. Axial CT chest with arrow depicting subcarinal lymphadenopathy.

* Corresponding author. Tel.: +44 1224559442.

E-mail addresses: helmy.hajamydin@nhs.net (H. Haja Mydin), d.miller@nhs.net (D. Miller), mchetty@nhs.net (M. Chetty), graeme.currie@nhs.net (G.P. Currie).

with the diagnosis of recurrent metastatic breast carcinoma. The patient went on to receive Letrozole and radiotherapy.

EBUS-TBNA is typically used to both diagnose and stage suspected lung cancer, usually in a solitary procedure. However, it is also useful in patients with undiagnosed mediastinal and hilar lymphadenopathy and those with suspected benign disorders such as sarcoidosis and tuberculosis. There are very few reports of EBUS-TBNA being used to diagnose recurrent breast cancer and we feel this case highlights the potential use of this procedure to those involved in the care of patients with breast cancer in whom mediastinal and pulmonary recurrence is possible. Moreover, the

case adds to the paucity of literature whereby EBUS-TBNA was used as a quick and effective tool by which recurrent breast cancer was diagnosed.

Conflict of interest

No conflicts of interest to disclose.

Reference

1. Currie GP, McKean ME, Kerr KM, Denison AR, Chetty M. Endobronchial ultrasound-transbronchial needle aspiration and its practical application. *QJM* 2011;**104**:653–62.