in principle, to patients receiving EBUS-TBNA, and no other patient has developed an infectious complication among 34 consecutive patients treated to date.

In conclusion, we have reported a patient who developed a mediastinal infectious complication after EBUS-TBNA, successfully treated using intravenous antibiotic therapy. EBUS-TBNA is a less-invasive and useful procedure for the definitive diagnosis of mediastinal adenopathy, but infectious complications can occur.

Conflict of interest: none declared.

REFERENCES


eComment. Fatal purulent mediastinitis after endobronchial ultrasound-guided transbronchial needle aspiration and mediastinoscopy

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doi: 10.1093/icvts/ivt342
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In our opinion the presented case is a good example of successful tissue sampling from mediastinal adenopathy after lung resection (which may be difficult) and also a successful management of mediastinitis [1]. Unfortunately, unrecognized tracheobronchial lesion after endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) may lead to fatality and this should lead to an improved post-procedural surveillance protocol.

A 61-year old female patient presented in our unit with signs of purulent mediastinitis and airway rupture, with external purulent blowing fistula through a cervical surgical wound, moderate dyspnoea, no fever. She had had an EBUS-TBNA and then a Carlens mediastinoscopy (both in another country) for a visceral compartment mediastinal mass, 6 days before presentation, with inconclusive diagnosis - pathological suspicion of Hodgkin lymphoma. At tracheobronchoscopy 2-round solutions of continuity with mediastinum were found: one on the carina (2-3 mm) and one on the right mainstem bronchus medial wall (5-6 mm), with abundant purulent secretions and air emerging from the mediastinum into the trachea. CT-scan showed the mediastinal non-invasive mass, pneumomediastinum with cervical extension and broken cartilages of the lower trachea. Despite transcervical mediastinal drainage, low-volume intermittent mediastinal lavage, repeated tracheobronchoscopic aspirations and all intensive care, cardiac arrest occurred after 16 days. We believe that the patient developed an unrecognized mediastinal infection, which opened into the airway through the 2 low-resistance spots after 2 needle passages during EBUS-TBNA. It is unclear when exactly the fistula occurred, before or after the mediastinoscopy (which may have worsened the local condition). This may be the 6th communication of mediastinal infection after EBUS-TBNA [2–5], which in this case proved to be fatal.

Figure 1: Chest CT before (Pre) and 1 week after endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA, Post). CT 1 week after EBUS-TBNA showed an enlarging mediastinal adenopathy with peripheral small air bubbles.

Figure 2: Clinical course with trends of body temperature and white blood cell counts.
Although very rare, mediastinal infection after EBUS-TBNA is a severe complication; after EBUS-TBNA, control bronchoscopy and CT scan in symptomatic patients should be seriously considered.

Conflict of interest: none declared

References


