Empyema thoracic necessitans mimicking a tuberculoma

An 86-year-old man presented with fever and a mass along the axillary line (Figure 1A). His medical history was silent except for a non well-defined pleural disease 60 years before.

First, a thoracic ultrasound and after a computed tomography (CT) scan (Figure 1B) demonstrated a well-defined mass of the chest wall with a fistulous tract that connects the subcutaneous collection to the pleural cavity (arrowheads).

The diagnosis is that of an empyema thoracic necessitans aroused many decades after primary tubercular infection. It occurs when the infected fluid dissected spontaneously into the chest wall from the pleural space break creating a pathologic communication between the pleural cavity and the subcutaneous tissues.

First described in 1640 by Gullan De Baillon when it developed after the spontaneous rupture of a syphilitic aneurysm, empyema necessitans is a rare entity today. The causes are infectious processes (pulmonary tuberculosis and chronic empyema), gossypibomas, oleothorax, neoplasms, migration of inhaled foreign body and complication of tube thoracostomy placement.

The current therapeutic strategy is to treat the causal agent and predisposing factors. Surgical repair is indicated only when symptoms are not controlled by medical management.

In our case we use, as a diagnostic and therapeutic strategy, the positioning of a pleural drainage under ultrasound guidance with a minimally invasive technique. We have inserted a 14F small-bore percutaneous pigtail catheter (COOK Medical, Bloomington, Indiana, USA) in polyurethane. The pleural fluid’s aspiration revealed three hundred millilitre of a pale creamy fluid, consisting of a lymphocytic exudate pH 7.11, and subsequent pleural fluid culture was positive for sensitive *Mycobacterium tuberculosis*.

The patient underwent surgical incision, drainage of the abscess and Video-Assisted Thoracic Surgery drainage of the pleural collection.

Figure 1. (A) Mass along axillary line. (B) Empyema thoracic necessitans at the CT scan imagine.
Standard anti-tuberculous therapy was begun and patient condition quickly improved.

This case draws our attention to a very rare complication of pulmonary tuberculosis and its treatment.

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References