A Case of Cytology of Pericardial Effusion which has a Metastasis Adenocarcinoma

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Description
A 49-year-old Chinese male patient with the symptoms of cough and wheezing for 10 days, CT scan showed infection and atelectasis of the lower part of each lung, bilateral pleural effusion, pericardial cavity effusion, upper lobe of right lung with multiple nodules, enlarged mediastinal lymph nodes, and bilateral adrenal gland enlarged evenly. Blood routine examination showed elevated neutrophil count (17.09 × 10^9) and percentage (88%), which suggested the possibility of acute infection.

Cytology for pericardial effusion suggested suspicious cells of tumor, and then cells of pericardial effusion were collected by centrifuge, and prepared for paraffin section. Immunohistochemistry was performed in order to help diagnosis (Figure 1). The suspicious cells are positive for MOC31, which is a mark of glandular epithelium; positive for TTF-1, which suggest possibility of originating from lung or thyroid; negative for all marks of mesothelium, such as CK5/6, D240, and CR. In summary, the cytology and histopathology, immunohistochemistry of pericardial effusion strongly suggested lung adenocarcinoma might exist (Figure 2).

However, primary lesion remained to be not found, while his renal function continued to deterioratered. During hospital stay, the patient underwent intussusception, but alleviated spontaneously. Palliative treatment was suggested, but the patient had strong will for further treatment, so the patient went to higher lever hospital for further treatment. 12 months later, the patient cannot be contacted nowhis relatives refused to render more information.

Figure 1: Cytology of pericardial effusion. (A) HE 100X and (B) HE 400X.
Figure 2: Immunohistochemistry for pericardial effusion (HE 400X).