

Imaging and clinical diagnosis

Case 344

1. Septic emboli or 4. Minute meningothelial nodules

[Progress]

Blood culture revealed streptococcus proliferation, inducing bacteremia.

[Discussion]

Minute meningothelial nodule or Pulmonary meningotheliomatosis are benign minute nodules that are littered bilateral lobes. Some of them own central lucent area. They are often reported as pulmonary meningothelial nodules (1-4). Meanwhile, minute meningothelial nodule is termed in the third edition of the WHO international histological classification of Tumors (2). Minute meningothelial nodule arises from unknown origin predominantly to woman rather than men (1,2). Histological findings of meningotheliomatosis are corresponded to brain meningioma (1-6). When pulmonary meningotheliomatosis occurs associated with brain meningioma, it is reported that pulmonary meningotheliomatosis might come from brain meningioma, namely metastatic pulmonary meningioma (5, 6). Melocchi L reported that three of the four with meningotheliomatosis were associated with brain meningioma (5). Further, they examined the previous manuscripts on pulmonary meningotheliomatosis, reporting that 4 of the 44 cases with pulmonary meningotheliomatosis owned brain meningioma, saying that pulmonary meningotheliomatosis might result from pulmonary deposit from brain meningioma (5). However, this theory is controversial.

Radiological configuration of pulmonary meningotheliomatosis demonstrate minute nodules in size of 5mm or less on chest CT (1-6). Some of the ground glass opacity nodules own central lucent as the nodules grow, mimicking nodule with cavity. Those images cause radiologists confusing to reach to diagnosis, since nodules with cavity in chest appear in various disease such as miliary Tbc, septic emboli, metastatic tumors from digestive organ cancer. However, relatively central lucent area of the nodule is a helpful diagnostic feature for this disease called a cheerio sign.

Histologic findings revealed alveolar septum thickening with epithelioid cells proliferation, indicating not neoplastic but some responsible action and further, remaining alveolar air space, corresponded to central lucent area demonstrated by chest CT (3).

In our case, she suffered from high fever of 40 centigrade degree. Chest CT depicted several small nodules with central lucent area, mimicking septic emboli. Blood culture revealed no evidence of bacterial proliferation. Although no histologic specimen was acquired, multiple minute nodules with central lucent area are consistent with those of minute meningothelial nodules.

[Summary]

We presented a twenty nine female with high fever of 40 degree centigrade whose chest CT showed some bilateral minute nodules of 5mm or less. Some of them own central lucent area. Blood culture revealed no bacterial proliferation. It is borne in mind that minute meningothelial nodules is shown as nodules of 5mm or less in bilateral lungs some of whose own central lucent area. This configuration composes of thickening alveolar wall with meningothelial proliferation and remaining alveolar air space.

[References]

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