中文題目:巨細胞病毒性肺炎後遊走性毛玻璃狀病灶:一個器質化肺炎不常見的表現

英文題目: Multiple migratory ground-glass opacities after cytomegalovirus pneumonitis: an unusual manifestation of organizing pneumonia

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## Background:

Organising pneumonia (OP) is a nonspecific lung injury response that may resulting from many conditions, and also need to be identified with other similar diagnosis such as pulmonary fibrosis or hypersensitivity pneumonitis. Here, we presented a case of OP relapse after CMV pneumonitis.

## Case presentation:

A 58-year-old female patient, a never-smoker, with history of bronchiectasis, chronic urticarial, HCV-related polyarthralgia, gastric lymphoma status post chemotherapy in 2011 (in stable condition now), came to our outpatient department (OPD) on 2021/01/11 with chief complaint of chronic cough more than one year, and sometimes caused dyspnea after vigorous cough. Chest X-ray (CXR) revealed left upper lung ground glass opacity (GGO) and chest CT exhibited new subsolid GGO over right lower lung (RLL) in comparison with CT 3 months earlier. A follow-up chest CT on 2021/05/04 revealed multiple lung GGOs, which was most involving over bilateral upper lobe, and previous GGO on RLL was resolved. The patient also had chief complaint of severe cough leading to hemosputum. Organizing pneumonia was diagnosed later by open lung biopsy, and she started steroid treatment. The cough and dyspnea was soon improved, but relapsed weeks later, and even worsen under 7 days of levofloxacin added on steroid treatment. Repeated CT on 2021/08/05 showed multiple GGO in bilateral lung. Cytomegalovirus (CMV) pneumonitis was confirmed by positive serum titer of CMV IgM. The clinical condition and CXR were improved after 14 days of ganciclovir. Steroid was gradually tapered off. However, increased productive cough and multiple focal consolidation of both lungs were noticed days later. Ceftazidime and Vancomycin were used empirically for coverage of septic emboli, but the clinical condition still progressed. CT-guided biopsy again showed a picture of organizing pneumonia. Steroid was resumed and the clinical condition dramatically improved.

## Discussion:

There are variety of imaging patterns could found on chest CT in patient with organising pneumonia (OP). The classic pattern was consolidation over subpleural or peribronchial, mid to lower lung, and might migrate, wax, wane or disappear. In our patient, she presented with bilateral lung GGO and consolidation, with migration and some got spontaneous regression.

In previous study, more than half relapsing patients were still receiving treatment for their initial episode when relapse discovered. Though relapse in OP patient was common complication and unpredictable,

there was no effect on mortality or morbidity. The relapsing patients still response to steroid treatment, however, some patients may leading to fibrotic lung disease, which means a poor prognosis. Higher dose of steroid or longer treatment course were not recommended as no evidence to show the relapse rate could be decreased and might increase the adverse effect of steroid.

## **Conclusion:**

As the radiographic features of COVID-19 pneumonia are often similar to OP, COVID-19 infection must be rule out first during the pandemic. OP could be associated with other etiologies including infection, radiation pneumonitis, connective tissue disorders, etc., or cryptogenic. Once the clinical condition or radiographic picture was not improved or even progress under treatment, re-biopsy was needed.