中文題目: A型-H3N2 流感肺炎伴隨急性呼吸窘迫症候群併發急性腦梗塞: 一例報告

英文題目: Acute Respiratory Distress Syndrome Associated with Acute Cerebral Stroke Caused by Influenza A-H3N2 Virus Treated: A case report

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## **Background:**

Treatment of influenza A-H3N2 infection with acute respiratory distress syndrome (ARDS) may be difficult. We report successfully treated of acute respiratory distress syndrome associated with acute cerebral stroke caused by influenza A-H3N2 virus

## **Case Report:**

A 64-year-old male had past histories of diabetes mellitus and hypertension. He was found to have the falling accident and unsteady gait for about one week on August, 19, 2017. He was brought to emergency department. Laboratory data revealed WBC, 7,700 /µL with bandemia, 1%; platelet count, 208,000 /μL; c-reactive protein, 33 mg/L; procalcitonin, 64 ng/ml; lactate, 5.3 mmole/L; creatinine, 1.26 mg/dL; K, 2.72 mmol/L. Arterial blood gas showed pH, 7.426; PCO2, 23.8 mmHg; PO2, 71.8 mmHg; HCO3, 15.8 mmol/L; Base excess, -6.2 mmol/L; FiO2, 100 %. Brain computed tomography was negative of stroke or hemorrhage. Fever, hypotension and dyspnea were noted. Intubation was performed. CXR showed increased interstitial opacity in bilateral lower lung fields. Then he was admitted to intensive care unit. The antibiotics with cefpirome and tigecycline were applied. Influenza virus type A revealed positive. PCR for influenza A (H3N2) in the nasopharynx sample was repeatedly positive, so oseltamivir (for five days) was ever used. High dose of vasopressors agent with fluid resuscitation were given. Sliding scale insulin therapy was given for hyperglycemia treatment. Right leg swelling was found. Compression ultrasonography ultrasound showed tight leg deep vein thrombosis. Cardiology department was consulted and added enoxaparin subcutaneous injection for two day, then shifted oral rivaroxaban for three weeks. Due to consciousness unclear, the brain magnetic resonance imaging revealed multiple small foci with diffusion restriction in right thalamus, bilateral corona radiata, and left high frontoparietal cortex; suspect acute infarction. However, elevated of infection parameters and suspected septic embolism related to acute infarction. Blood culture with sputum culture yielded klebsiella oxytoca. Transesophageal echocardiography was done and revealed no vegetation. We shifted antibiotics with piperacillin/tazobactum. Consciousness has become clear, so started weaning training then successful extubation. He was transferred to ward on September, 13. Neurologist was consulted due to acute infarction in right thalamus, bilateral corona radiata, and left high frontoparietal cortex survey. The mini-mental state examination and clinical dementia rating was done and it showed compatible with moderate dementia. Rehabilitation division was consulted for and bed side rehabilitation. After treatment, his general condition gradually improved. He was discharged with outpatient department follow up on September, 23, 2017.

## **Conclusion:**

During past seasons when influenza A (H3N2) viruses have predominated, higher overall and

age-specific hospitalization rates and more mortality have been observed, especially among older people. Atherosclerosis is a highly prevalent disease. Evidence suggests that influenza may play a causal role in the development of atherosclerosis and its complications. Whereas most other infectious agents result in a chronic, indolent infection, which presumably increases chronic inflammation of the arterial walls, influenza induces notable acute arterial-wall inflammation and may trigger plaque destabilization that leads to acute coronary syndrome and stroke.