CASE REPORT

COVID-19 WITH MILD PNEUMONIA

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ABSTRACT

Background: On December 31, 2019, WHO China Country Office reported a case of pneumonia of unknown etiology in Wuhan City, China. On January 7, 2020, China identified pneumonia of unknown etiology as a new type of coronavirus (coronavirus disease, COVID-19).

Case Report: A 39 y.o. woman came to hospital with dry cough three days earlier. There was no other complaints. Physical examination was normal. There was a history of contact with patient COVID-19. Patient was diagnosed as acute respiratory infection and got cefixime 2 x 400 mg for 5 days and vitamins. Chest X-ray was normal while chest CT scan show ground glass opacification (GGO). The PCR swab was positive. The patient diagnosed as COVID-19 with mild pneumonia. The patient underwent independent isolation by taking the hydrochloroquin sulfate on day 1: 2 x 2 tab, days 2 - 14: 2 x 1 tab. The patient also took Vitamin C 1000 mg, Vitamin D3 200 IU and Zinc 1 x 20 mg.

Results: Clinical symptom was better. On chest CT scan, GGO image has improved. The PCR swab turned negative.

Keywords: COVID-19, Mild Case, Pneumonia

INTRODUCTION

On December 31, 2019, WHO China Country Office reported a case of pneumonia of unknown etiology in Wuhan City, China. On January 7, 2020, China identified pneumonia of unknown etiology as a new type of coronavirus (coronavirus disease, COVID-19). On January 30, 2020, WHO has designated it as a Public Health Emergency of International Concern. The number of COVID-19 cases fastly increase and spread among countries. In Indonesia, the first two cases of COVID-19 were reported on March 2, 2020.[1]

CASE REPORT

On March 8, 2020, a 29 y.o. woman came to a hospital in South Tangerang with a dry cough three days earlier. She has no other symptom. There was history of contact with COVID-19 patients. Physical examination was normal. Doctor diagnose as upper respiratory tract infection and give cefixime 2 x 200 mg and paracetamol if necessary. On March 20, 2020 cough still exist. Haemoglobin 13.5, Leucocyte 5100, platelets 254,000, hematocrit 40 and ESR 23. Chest X-ray on March 12, 2020 show infiltrate and increase of bronchovascular pattern (Figure 1).

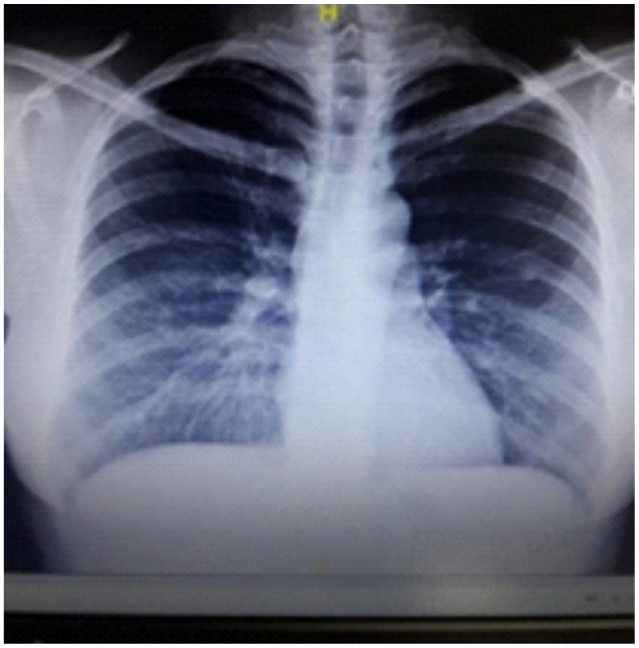

Figure 1. Chest X-ray on March 12, 2020

On March 14, 2020, cough still exist and patient received Azithromycin 1 x 500 mg, Longatin 3 x 50 mg, Rhinos SR 2 x 1, Imboost Force 1 x 1. On March 17, 2020, PCR swab for COVID-19 was positive. On March 19, 2020, cough decreased. Chest CT scan show bilateral ground glass opacity (GGO) (Figure 2).

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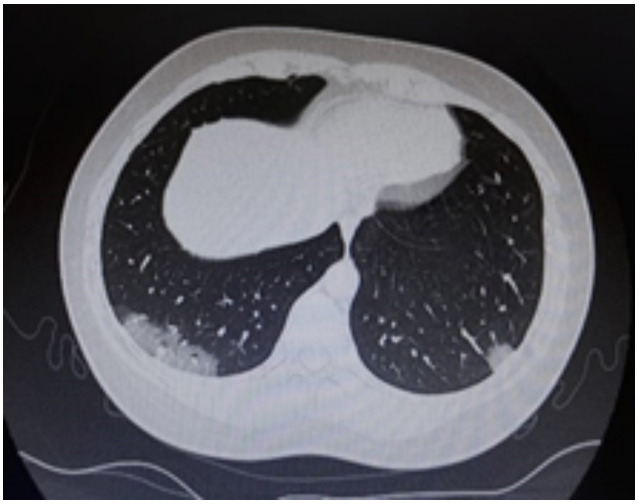

Figure 2. Chest CT scan of the chest on March 19, 2020

Patient diagnosed as COVID-19 with mild pneumonia, treated with hydrochloroquin sulfate 200 mg. day 1: 2 x 2 tablets, day 2 - 14: 2 x 1 tablet, Vitamin C 1000 mg, vitamin D3 200 IU and Zinc 20 mg. Patient isolated at home with several protocols to avoid COVID-19 spreading. On March 26, 2020, PCR swab was negative. Patient declared cured.

Chest CT scan on April 6, 2020 show GGO was reduced, leaving a subtle fading of the ground glass in the posterior periphery of the inferior lobe of the right and left lung (Figure 3).

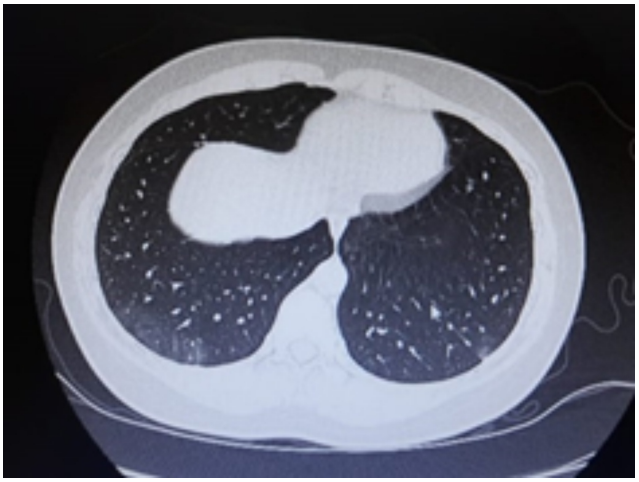

Figure 3. Chest CT scan of the chest on April 6, 2020

DISCUSSION

This patient has a mild symptoms and no comorbidity. Mild symptoms is defined as a patient with an acute uncomplicated upper respiratory tract infection, which may present with fever, fatigue, cough (with or without sputum), anorexia, malaise, sore throat, nasal congestion, or headache. This patient does not require oxygen supplementation.[2] About 80% of people infected with COVID-19 have mild to moderate illness and can recover. Severe illness reached 13.8% (shortness of breath, respiratory rate ≥ 30 / minute, blood oxygen saturation ≤ 93%, PaO2 / FiO2 ratio <300, and / or pulmonary infiltrates> 50% of lung fields) while 6.1% was in critical condition (respiratory failure, septic shock and / or multi-organ dysfunction or failure).[3]

Chest X-ray of this patient was initially only mild infiltrate and coarse of bronchovascular pattern. Guan et al. found that chest X-ray were less sensitive than CT scan, because in about 40% of cases there were no abnormalities on chest X-rays.[4] Cleverly et al stated in the early stages of COVID-19 between 0 - 63% of chest X-rays are normal.[5]

Chest CT scan revealed bilateral, multilobar and peripheral GGO image. This is in accordance with research by Salehi, et al. whereas the main finding on CT scan of the chest was GGO (88%), with or without consolidation, consistent with viral pneumonia. Pulmonary involvement tends to be bilateral (87.5%), multilobular (78.8%), more frequent in the inferior lobe with a more peripheral distribution (76%). Septal thickening, pleural thickening, bronchiectasis and subpleural involvement are not common.[6]

The blood count was normal. Based on literature, it is stated that the number of white blood cells can vary, cannot provide accurate information about COVID-19. Lymphopenia is common, seen in more than 80% of patients. Mild thrombocytopenia is frequently seen. Thrombocytopenia is considered a poor prognostic factor.[4]

The result of the PCR COVID-19 swab test in this patient was positive. The World Health Organization (WHO) recommends molecular testing for all patients in the suspect category. The recommended method for virus detection is nucleic acid amplification by real-time reversetranscription polymerase chain reaction (rRT-PCR) and by sequencing.[2]

This patient has minor complaints and is in good general condition, therefore the patient can be treated at home in independent isolation. Patients with mild infections may not be admitted to the hospital, but patients should be taught steps to prevent transmission of the virus. Home isolation can be done until the patient has two consecutive negative virological tests with a minimum sampling interval of 24 hours. If this is not possible, the patient is isolated for up to two weeks after symptoms disappear.

Some considerations for indications of home care include: the patient can be monitored or a family can care for; no comorbidities such as heart, lung, kidney, or immune system disorders; there are no factors that increase the risk of developing complications; or inpatient facilities are not available or inadequate.[7]

In the early of COVID-19 there were no specific management recommendations for COVID-19 patients, including antivirals or vaccines. Management that can be done is symptomatic therapy and oxygen. China's National

Health Commission (NHC) has studied several drugs that have the potential to overcome SARS-CoV-2 infection, including interferon alfa (IFN-α), lopinavir/ritonavir (LPV / r), ribavirin (RBV), chloroquine phosphate (CLQ / CQ), remdesivir and umifenovir (arbidol).[8]

Chloroquine, an antimalarial and autoimmune drug, is known to inhibit viral infection by increasing endosomal pH and interacting with the SARS-CoV receptor. The effectiveness of this drug is getting better because it has immunomodulatory activity that strengthens the antiviral effect. In addition, chloroquine is well distributed in the body, including the lungs.[9]

Antibiotics are only justified in patients with suspected bacterial infection as early as possible. In conditions of sepsis, antibiotics must be given within 1 hour. The antibiotic chosen was empiric antibiotic based on the local microbial profile.[10]

Vitamin C is known to have a wide range of pleiotropic physiological functions. Suboptimal vitamin C levels commonly found in critically ill patients are correlated with organ failure and poor outcome. The decrease in vitamin C levels is caused by inflammatory cytokines that deplete absorption of vitamin C. This condition is exacerbated by increased consumption of vitamin C in somatic cells. Therefore, a high dose of vitamin C was considered to overcome the sequencing of suboptimal levels in critically ill patients.[11]

CONCLUSION

A 39 y.o. woman was diagnosed as positive of COVID-9 with mild pneumonia. The patient underwent self-isolation with COVID-19 protocols and received hydrochloroquin sulfate, vitamin C, vitamin D3 and zinc. Clinical symptoms better. Evaluation by chest CT scan show GGO improved. PCR swab turned negative.

CONFLICT OF INTEREST
None declared.

FUNDING SOURCES
None.

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