Pneumonia With Systemic Lupus Erythematosus

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Introduction

Systemic lupus erythematosus (SLE) is an autoimmune disease that is 9 times more common in women. SLE is mostly seen in the hematological system, pericardium, skin, kidney and respiratory systems. The appearance of the respiratory system in lupus disease may appear as infection, pleural effusion, alveolar hemorrhage and pulmonary embolism. In this case, we present a 19-year-old lupus pneumonia case who came to the emergency service.

Case

19-year-old female patient in the green area of the emergency service; She applied with the complaint of shortness of breath and fever, which lasted for about a week and became frequent especially in the last few days. It was learned that the patient was diagnosed with systemic lupus erythematosus (SLE) and has not been under any doctor’s control for 2 years. She did not have any disease other than SLE in his background. The patient regularly received allopurinol 300 mg 1*1, perindopril 5 mg 1*1, hydroxychloroquine sulfate 200 mg 1*1, carvedilol 6.25 mg 1*1, furosemide 40 mg 1*1, acetylsalicylic acid 100 mg 1*1, prednisolone 16 mg 1*1 oral. Also, it was learned that the patient had a flu infection 1 week ago and oseltamivir phosphate 75 mg 2*1 was started in an outer center primary health center. In her physical examination, the degree of Glauskow Coma Scale (GKS) was 15 orientated cooperative, and when the lung examination was examined, there were bilateral inspiratory rales, expiratory extension and wheezing, other system examinations were natural. TA: 139/81 mm/hg, SpO2:78%, Pulse:143/
minutes, the fever was 38.3 °C. ECG was sinus tachycardia. Results of the patient in laboratory examination were determined as WBC: 17.26 10^3 mm^3, Hgb: 7.5 g/dl, Plt: 419.000/mm^3, AST: 31 U/L, ALT: 12 U/L, Creatine: 0.73 mg/dl, BUN: 32.1 mg/dl, CRP: 10.2 mg/dl and procalcitonin 1.99 ng/ml. The results in blood gas analysis were pH: 7.45, PCO2: 27mmHg, PO2: 47.5mmHg, sO2: 85%, HCO3:18.6 mmol/l, SBE: -4.7mmol/l and lactate: 1.3mmol/l. On the non-contrasted computed tomography (CT) of the patient, parenchymal infiltrative densities with locally occurring air bronchograms were observed in both lungs (Figure-1). The patient was consulted for 4 l/min oxygen. Oseltamivir phosphate 75 mg 2*1, piperacillin – tazobactam 4.5 g 3*1, clarithromycin 500 mg 2*1, prednisolone 40 mg 1*1, intravenous salbutamol 2.5 mg 4*1 and budesonide 0.25 mg/ml 2*1 drugs were recommended to the patient consulted to the chest diseases clinic. Inhaler treatment was also started. Close follow-up and intensive care follow-up were recommended for the patient’s respiratory failure and acute respiratory distress syndrome (ARDS). Despite the treatment recommended to the patient, his clinical condition deteriorated; the patient was referred to intensive care unit because of the need for a noninvasive ventilator.

**Discussion**

We encounter acute respiratory injuries due to lupus as pleural effusion, lupus pneumonia, pulmonary hemorrhage and pulmonary embolism. Due to lupus findings of respiratory system, hospital stay and mortality rates increase. The most common finding in respiratory system findings is pleural effusion. The frequency of pneumonia is between 15-28%. There are publications reporting that hospitalization rates are higher among young women due to pneumonia in patients with SLE in the literature. In these patients, pneumonia-related mortality is 10-12%. Acute fever, cough, tachypnea and hypoxia are seen in pneumonia associated with SLE. The radiological sign of lupus pneumonitis is pleural effusion and infiltration, usually basal and bilateral.

Although the most frequently isolated factor in community-acquired pneumonia is micobacterium pneumonia; In cases with SLE, no cardia aspergillus and S.aureus are the most frequently isolated microorganisms. Therefore; In these patients, initiation of broad spectrum antibiotherapy is recommended. In acute lupus pneumonia, systemic corticosteroid (prednisolone 1-1.5mg / kg day) must be added to
the treatment. If there is no improvement in clink within 72 hours in these patients, 1 g of methylprednisolone treatment is recommended for 3 days.

**Conclusion**

Although pneumonia is rare in patients diagnosed with lupus, it is a clinical condition with mortality. Broad-spectrum antibiotics and immunosuppressive treatment should be started, and necessary precautions should be taken to avoid other complications and close follow-up should be done.

**References**
