What is your diagnosis?

Tolunay et al. Markedly elevated CRP values in a twin pregnancy

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DOI: 10.4274/jtgga.galenos.2022.2022-4-6

Received: 28 April, 2022 **Accepted:** 08 July 2022

A 28-year-old Afro-Asian, 16-week-old twin pregnant applied to our center due to fatigue and fever. At her first antenatal visit at 10 weeks, dichorionic twin pregnancy was present. One of the fetuses was with negative fetal cardiac activity, the other did not have any abnormal ultrasonographic findings and consistent with 10 weeks. The nuchal translucency and nasal bone were normal. She had a healthy pregnancy 8 years ago, which occurred through a normal vaginal route. Fetal ultrasonographic findings were consistent with 16 weeks twin pregnancy with vanishing twin, in the hospital admission. The amniotic fluid of the alive fetus was normal, the sac margins were regular, and the cervical length was 40 mm. The death fetus was consisted with 9-10 weeks. The patient was hospitalized since she describes fatigue and fever. In the laboratory findings, the CRP value is very high (105 mg/L), d-dimer value was 2250 ng/mL. WBC levels and INR were in normal ranges. Hb value was 7 mg/dL. She has febrile episodes ranging 37.2-38^{0}C. No microorganisms were grown. No findings of choroamnionitis was shown. We started empric antibiotics (piperacillin-tazobactam) for suspicious common microorganisms. In three days, no decline in the CRP values or procalcitonin levels were detected. Covid 19 PCR tests were also negative. Chest X-ray revealed so many micronodules scattered throughout both lungs (Figure 1). On the thorax computed tomogram miliary nodules can easily be seen throughout the lungs (Figure 2). We switched antibiotics to meropenem. At three days of meropenem, there was again no change seen in CRP values along with liver enzymes started to increase. We referred the patient for the definitive diagnosis and treatment of chest diseases department.

Answer

Miliary (disseminated tuberculosis) occurs as a result of the acute spread of tuberculosis bacilli through the blood, in numbers that can overcome the immunity of the host. The term miliary originates from diffuse micronodular pathological appearances with a diameter of 1-3 mm, and miliary tuberculosis affects many organs such as liver, kidney, and brain etc. during the disease as well as the lungs. Miliary tuberculosis can also develop from multiple sites where it was located during primary bacilli in the past, as a result of simultaneous activation due to a sudden decrease in immunity. In another mechanism, bacilli seen together with primary lung infection cause progressive disease in many organs at the same time [1,2]

It is a form of tuberculosis that is seen especially in people whose immune system is suppressed. The differential diagnosis includes pneumonia, sarcoidosis, lymphoma and lung malignancy. Quantiferon test resulted as uncertain. She has no BCG vaccine scar. As sputum acid fast bacilli (AFB) investigation was suspicious, fiberoptic bronchoscopy was performed to take histopathological and microbiological specimens. Bronchial lavage was also negative for AFB. However, Gen-Expert study revealed tuberculosis PCR positivity along with absence of rifampicin resistance. Radiometric culture results have still been awaited. Biopsies did not show any specific results. This patient was started on four-drug initial regimen of antituberculous therapy once the diagnosis was established. The recommended duration of treatment varies between 6-24 months [3].

There are limited number of cases in the literature. Although miliary tuberculosis is uncommon in pregnancy, it is difficult to diagnose when present and is often associated with a maternal history of intravenous drug abuse, malignancy, alcoholism, or human immunodeficiency virus infection [4]. She was negative for all of them except for coming from high burden country. On the USG examination, oligo-anhydroamnios of the fetus was detected. Due to poor prognosis in the pregnancy, we planned to terminate it according to risky condition of the patient along with her decision and the recommendation of the chest consultant, at the 18th gestational week. Abortion was induced, after giving erythrocyte suspension of two unites for maternal anemia. The patient has been well continuing to receive antituberculous treatment.

References

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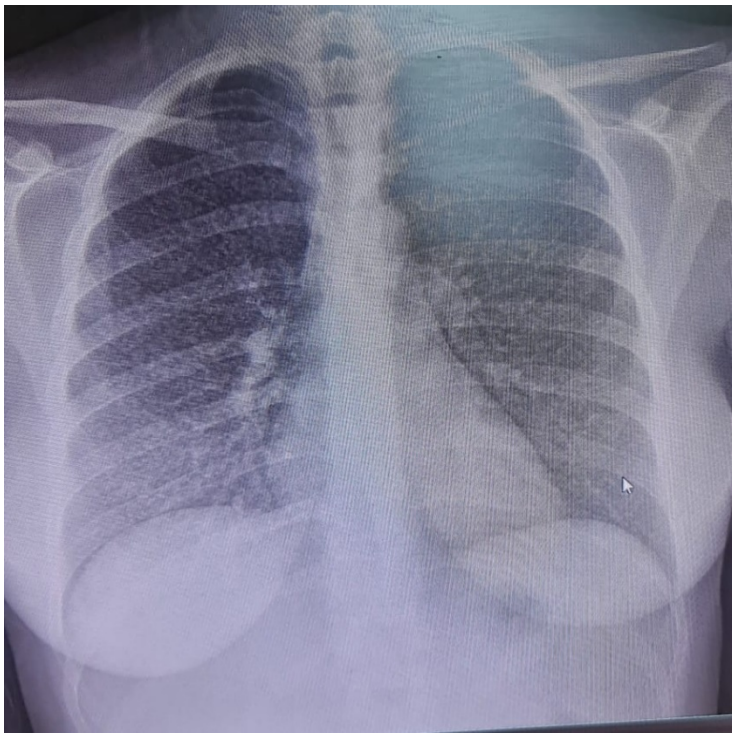

Figure 1. Chest X-ray image

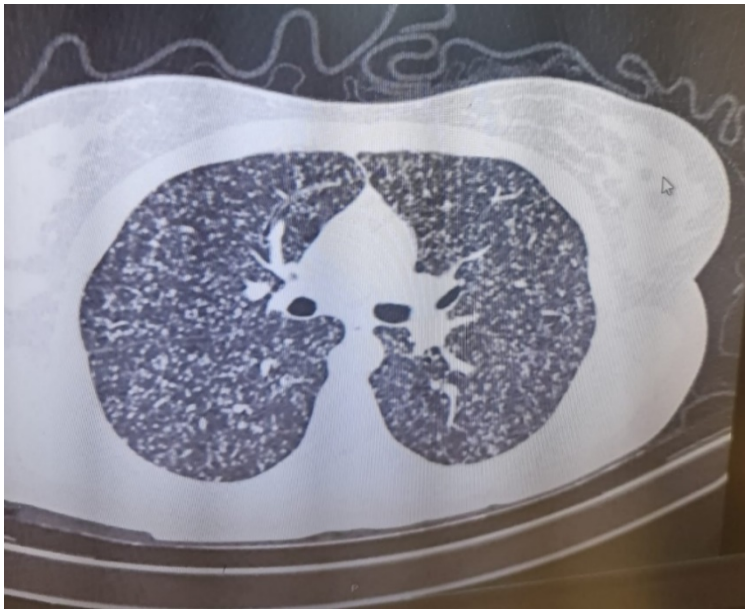

Figure 2. Thorax computed tomography image