What is your diagnosis?

A 28-year-old Afro-Asian, 16-week twin pregnant woman attended our center due to fatigue and fever. At her first antenatal visit at 10 weeks, dichorionic twin pregnancy was present. One of the fetuses had negative fetal cardiac activity, the other did not have any abnormal ultrasonographic findings and findings were consistent with 10 weeks. The nuchal translucency and nasal bone were normal. She had a healthy pregnancy eight years previously, which delivered through a normal vaginal route. Fetal ultrasonographic findings were consistent with 16 weeks twin pregnancy with vanishing twin at hospital admission. The amniotic fluid of the live fetus was normal, the sac margins were regular, and the cervical length was 40 mm. The dead fetus was consistent with 9-10 weeks. The patient was hospitalized because of fatigue and fever. In the laboratory findings, the C-reactive protein (CRP) value was very high (105 mg/L) and D-dimer value was 2250 ng/mL. White blood cell count and international normalized ratio were in normal ranges. Hemoglobin value was only 7 mg/dL. She has febrile episodes, ranging 37.2-38 °C. No microorganisms were grown. No findings suggestive of choroamnionitis were found. We started empric antibiotics (piperacillin-tazobactam) for suspicion of common microorganisms. In three days, there was no decline in the CRP values or procalcitonin levels were detected. COVID-19 polymerase chain reaction (PCR) tests were also negative. Chest X-ray revealed many micronodules scattered throughout both lungs (Figure 1). On the thorax computed tomogram miliary nodules are evident throughout the lungs (Figure 2). We switched antibiotics to meropenem. After three days of meropenem, there was again no change in CRP values, while liver enzymes started to increase. We referred the patient for definitive diagnosis and treatment to the chest diseases department.

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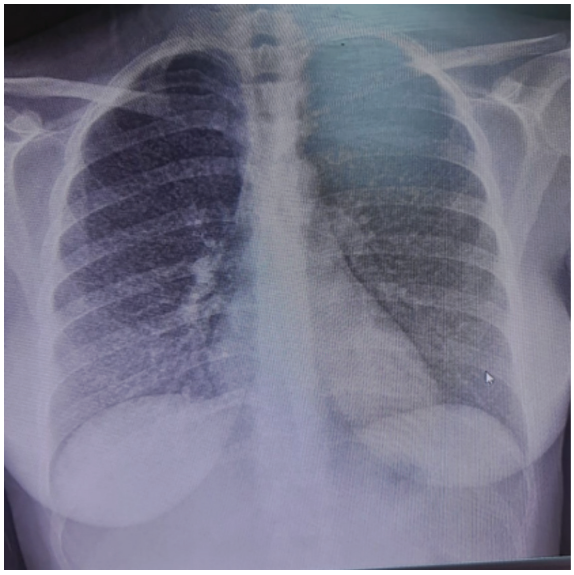

Figure 1. Chest X-ray image

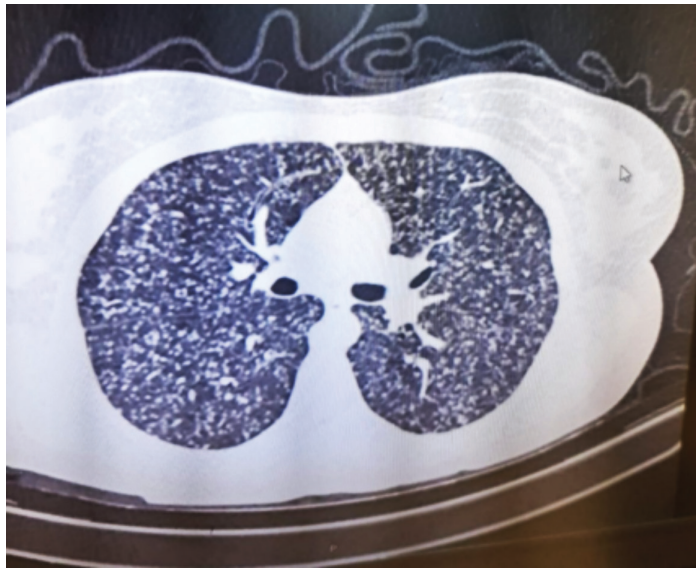

Figure 2. Thorax computed tomography image

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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 as well as the lungs during the disease. Miliary tuberculosis can also develop from multiple sites where it was located during primary bacilli infection 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 inconclusive. 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, a Gen-Expert study revealed tuberculosis PCR positivity along with sensitivity to rifampicin. Radiometric culture results are still awaited at the time of writing. 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 a 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 these risk factors with the exception of coming from a high burden country. On ultrasonography, oligo-anhydroamnios of the fetus was detected. Due to poor prognosis in the pregnancy, we planned to terminate it because of high risk for the patient, subject to her decision and the recommendation of the chest consultant, at the 18th gestational week. Abortion was induced, after giving erythrocyte suspension of two units for maternal anemia. The patient has been well since and is continuing to receive antituberculous treatment.

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