

## Generalized Tuberculosis in a Newborn, Possibly Resulting from Intrauterine Infection

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A male infant aged 2 months and 13 days was transferred to our hospital to rule out histiocytosis X. His diagnosis upon admission was bacteriemia, pneumonia, prematurity (36 out of 37 weeks), and intrauterine growth retardation.

The mother was 27 years old and a smoker. Her medical history included a syphilis in 2000. A gravida 1, she had undergone a pregnancy complicated by pyelonephritis and anemia and had a C-section at 36 weeks. At birth, the infant's weight was 1850 grams, and his Apgar score was 8/9. During the neonatal period, the child was active and in satisfactory condition, without visible pathology. At 3 days of age, however, a complete blood count (CBC) revealed polycythemia with a hemoglobin level of 240 grams per liter but without leukocytosis.

In the local hospital, a routine CBC revealed leukocytosis at 20.1 with neutophils at 35 percent and segmentocytes at 40 percent; the erythrocyte sedimentation rate (ESR) was 19 millimeters per hour. Tests for hepatitis B and C, syphilis, and AIDS were negative. The first blood culture showed no growth; the second, growth of *Staphylococcus epidermolysis*. Tests for antibodies to *Chlamydia* and *Mycoplasma* were negative. Multiple urinalyses did not reveal pathology. A stool evaluation revealed *Klebsiella pneumoniae*.

A chest x-ray at the age of 17 days did not reveal a pathology, but when repeated at the age of 1 month the x-ray revealed bilateral pneumonia. An ultrasound examination of the internal organs at the age of one month and three days did not reveal any pathology. However, 25 days later a second ultrasound revealed an enlarged liver and an enlarged spleen with a nonhomogeneous structure. A Mantoux (tuberculin) test with 2 TU proved negative. X-rays revealed no long-bone pathology.

Following this, the infant was clinically stable for a period and was active. His lungs were clear to auscultation, and he was hemodynam-

ically stable. At the age of 1 month, the child developed a fever that ranged up to 38.8 degrees Celsius, suffered from liquid stools, and lost weight. He was also diagnosed with hepatomegaly (+2 cm) and splenomegaly (+ 4 cm).

Chest and abdominal computed tomography (CT) scanning at 2.5 months of age revealed disseminated hematogenic lung lesions and hepato-splenomegaly. The scan also revealed possible abdominal and right-thoracic lymphadenopathy (figures). The follow-up abdominal ultrasound showed that the right lobe of liver was enlarged, as were the portal and retroperitoneal lymph nodes (+1.2 cm to +1.5 cm) and revealed spleen calcifications.

A test for tuberculosis exposure was performed using the RNHAf antibody titer with positive results (1:32). At this time, the mother presented documentation from a regional TB clinic certifying that her chest x-ray was normal. The attending pediatrician insisted upon repeating the mother's examination, and she was eventually diagnosed with pulmonary tuberculosis, complicated by tuberculosis-induced pleurisy. We later discovered that the mother had asked another woman to have a chest x-ray in her place.

The infant was transferred to the children's TB hospital with a diagnosis of generalized tuberculosis. It was hypothesized that the child was exposed to the pathogen while in utero. The mother was also hospitalized for treatment. The child is now 2 years old. He and his mother have been discharged from the hospital and are now undergoing outpatient treatment.

