Case series: No complications with Lyme disease and pregnancy

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https://danielcameronmd.com/no-complications-lyme-disease-pregnancy/

The ?rst con?rmed case of LB [Lyme borreliosis] in a pregnant woman was described in 1985 in a 28-year- old mother who was infected with LB in the first trimester and delivered her baby at 35 weeks, the authors explained, based on a paper by Schlesinger et al.[2]

“The mother developed symptoms consistent with LB post-delivery as documented by a positive immuno?uorescence assay for LB. Unfortunately, the child died of congenital heart disease, and the autopsy revealed spirochetes in?ltrating the spleen, kidneys, and bone marrow, but not cardiac tissue," the authors wrote.

"Complications of maternal Lyme borreliosis in pregnancy outcomes have been already reported, including stillbirth and possible congenital malformations," wrote Trevisan et al.

They point out, "Borrelia speci?c antibodies have been detected in the cerebrospinal ?uid of an infant with documented neurologic dysfunction."

“Pregnant women are considered a vulnerable group due to a weakened immune system. Therefore, they are more susceptible to infection with an increased risk for severe illness…and infections in pregnant women have the added gravity of potential infection in the developing fetus.”[1]

According to the study, which included 11 pregnant women with Lyme disease, 5 women were diagnosed and treated for LB in the first trimester, 3 in the second trimester and the last 3 women in the third trimester of pregnancy.

There was a wide range of clinical presentations, as 6 women developed erythema migrans rash during pregnancy (between week 8 and 34), 3 had myoarticular involvement and 1 exhibited neurological symptoms.

Two of the women had positive serology for LB but did not develop any clinical symptoms. The other patients were positive, except for the 26-year-old patient with erythema migrans.

All the mothers were treated with amoxicillin 1g 3x/day for 14 days.

One child was born prematurely at 7 months. Another child was born with angiomatoid patches that regressed spontaneously 18 months later. All the other babies were born healthy.

At 1-year follow-up, 10 of the women were healthy. One woman with articular and neurological involvement improved partially with amoxicillin but required treatment with intravenous ceftriaxone because of persistent symptoms.

Authors conclude

- "In pregnant women in endemic areas for Lyme Borreliosis, also testing antibodies against Borrelia should be routinely recommended, in case of positivity the same analysis could also be suggested on umbilical cord blood at delivery."
- "Pregnant women with LB should be treated and clinically followed, with particular attention for cutaneous, myoarticular, neurological, ocular and cardiac manifestations, which could require a fetal ECO-cardiography follow-up."
- "Newborns should be examined for possible clinical manifestations, as babies born from mothers with gestational LB have been documented in some cases to be small for dates, or presenting several manifestations including pyloric stenosis, cutaneous annular erythemato-papular eruption, cutaneous angiomas, neurological disorders, muscle hypotonia, hypospadias and skeletal abnormality."

Editor's note: Although there were no complications reported in this case series, it would be helpful to study gestational Lyme disease. In addition, it would be beneficial to follow cases to ensure no sequelae, i.e., ADHD and Autism.

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References:

1. Trevisan G, Ruscio M, di Meo N, et al. Case Report: Lyme Borreliosis and Pregnancy - Our Experience. Front Med (Lausanne). 2022;9:816868. doi:10.3389/fmed.2022.816868
2. Schlesinger PA, Duray PH, Burke BA, Steere AC, Stillman MT. Maternal-fetal transmission of the Lyme disease spirochete, Borrelia burgdorferi. Ann Intern Med. Jul 1985;103(1):67-8. doi:10.7326/0003-4819-103-1-67
