


Lyme Disease: Pregnancy and Sexual Transmission

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Tessa Gardner: Chapter 11, page 447 – 528. In: Mothers with active Lyme Disease, Treated: 14.6% of the pregnancies with sequelae, Untreated: 66.7% of the pregnancies with sequelae, Unknown as to treatment: 30.3% with sequelae, Specific adverse outcomes included: cardiac 22.7%, neurologic 15.2%, orthopedic 12.1%, ophthalmic 4.5%, genitourinary 10.6%, miscellaneous anomalies 12.1%, 2nd trimester demise 12.1%, Highest rate of adverse outcome (72.7%) in women with infection acquired prior to or during first trimester, without treatment Risk of transmission varies by trimester, thus decision-making re antibiotic choice may be influenced by the trimester in which exposure occurred. Highest risk of adverse congenital sequella occurs in the first and early second trimester. Per Tessa Gardner's compilation of studies of gestational exposure (*Infectious Diseases of the Fetus and Newborn*, Chapter 11, 5th ed, 2001): "...[some] recommend longer duration of antibiotic therapy in gestational Lyme borreliosis because of concern about transplacental spread...Other investigators recommend more aggressive therapy, such as intravenous antibiotic therapy, for all cases of gestational Lyme borreliosis because of concern that there is a significant potential risk to the fetus, which is not yet fully appreciated, following any gestational Lyme borreliosis infection; also, they believe that high-dose intravenous antibiotic therapy is more successful at achieving antibiotic levels above the MIC of the spirochete on

both the maternal and fetal sides of the placenta, and that parenteral antibiotic therapy should be considered for some patients with gestational Lyme borreliosis, particularly in those with first- or early second-trimester or disseminated gestational Lyme borreliosis.....There are investigators who favor more aggressive therapy for gestational Lyme disease. The National Institute of Arthritis and Musculoskeletal and Skin Diseases and the National Institute of Allergy and Infectious Diseases recommend consideration of intravenous antibiotic therapy for first-trimester gestational Lyme borreliosis, and routine therapy according to guidelines for the clinical stage of disease for other trimesters. Podolsky suggests that intravenous ceftriaxone may provide greater protection for the fetus than oral penicillin...."

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