Maternal gonococcal infection as a preventable risk factor for low birth weight.

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Abstract:

With the objective of determining if specific sexually transmitted diseases (STDs) are associated with prematurity (birth weight less than or equal to 2500 g and gestational age less than or equal to 36 weeks), a case-control study was conducted to evaluate women for serologic evidence of syphilis and human immunodeficiency virus infection and microbiologic evidence of cervical infection with Neisseria gonorrhoeae, Chlamydia trachomatis, and Haemophilus species and vaginal infection with genital mycoplasma, Streptococcus agalactiae, and Enterobacteriaceae. Gram stains of vaginal secretions were evaluated for bacterial vaginosis. Among 166 cases and 175 controls, infection with N. gonorrhoeae was associated with preterm birth. Four percent of controls and 11% of cases were infected with N. gonorrhoeae (odds ratio 2.9, 95% confidence interval 1.2-7.2). This association was independent of age, rupture of membranes, and hypertension. Other STDs were not associated with preterm birth. The attributable risk of gonococcal infection was 14%. Gonococcal infection appears to be responsible for a substantial proportion of premature births and is theoretically preventable by antenatal case detection and treatment.