CHLAMYDIA TRACHOMATIS INFECTION AND NEUROMUSCULOSKELETAL MORBIDITY

CHLAMYDIA TRACHOMATIS ENFEKSIYONU VE NÖROMUSKULOSKELETAL MORBIDITE

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ABSTRACT

Chlamydia trachomatis infection is an important sexually-transmitted disease. The correlation between Chlamydia trachomatis infection and spondyloarthropathy as well as infantile brain lesion secondary to intrauterine infection has been confirmed. However, the correlation between Chlamydia trachomatis infection and mental disorder required further evidences for conclusion.

Key words: Chlamydia trachomatis, infection, neuromusculoskeletal, morbidity

ÖZET

Chlamydia trachomatis enfeksiyonu seksüel yolla geçen önemli bir hastalıktır. Chlamydia trachomatis enfeksiyonu ile spondiloartropatiler ve infantil rahim içi enfeksiyona ikincil beyin lezyonları arasında ilişki olduğu gösterilmiştir. Ancak Chlamydia trachomatis ve mental bozukluklar arasındaki ilişki hakkında sonuca varmak için daha ileri kanıtlara ihtiyaç vardır.

Anahtar kelimeler: Chlamydia trachomatis, enfeksiyon, nöromüskuloskeletal, morbidite

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Chlamydia trachomatis, an obligate intracellular, Gram-negative bacterium is the causative agent of several acute or chronic, local and systemic human diseases such as trachoma, oculogenital and neonatal infections (1). It was discovered in 1907 by Halberstaedter and von Prowazek who observed it in conjunctival scrapings from an experimentally infected orangutan (1). Mylonas et al said that infection with Chlamydia trachomatis was the most common sexually transmitted disease in the world (2). In women it mainly occurs before the age of 25 years, while in men it can still be diagnosed till the age of 35 years (2,3).

Worldwide, the magnitude of morbidity associated with sexually transmitted chlamydial infections is enormous (4). Chlamydia trachomatis is a common cause of urethritis and cervicitis, and sequelae include pelvic inflammatory disease (PID), ectopic pregnancy, tubal factor infertility, epididymitis, proctitis and reactive arthritis (4). Chlamydial PID is the most important preventable cause of infertility and adverse pregnancy outcome (4). DNA amplification tests on first voided urine or cervical swab are the most sensitive routine tests (5). Specific serum antibodies to Chlamydia trachomatis indicate a previous infection in sterile women (5,6). For treatment, a 10-14 day course of doxycycline 200 mg daily or a macrolide antibiotic for the patient as well as for the sexual partner is recommended (5,6).

Undifferentiated spondyloarthropathy (USpa) may either represent a "forme fruste" of other spondyloarthropathies like reactive arthritis or be a different disease entity. Aggrawal et al. noted that a proportion of patients with USpa might in fact have reactive arthritis (7). Lapadula et al. reported that anti-bacterial antibodies to Chlamydia trachomatis in USpa cases were lower than normal healthy subjects (8). In addition to USpa, the correlation between Chlamydia trachomatis is also mentioned for ankylosing spondylitis. Lange et al. noted that confirmed ankylosing spondylitis must get specific investigative protocol including a medical-rheumatological examination and thorough exploration for infections of the urinogential tract (9). The microorganisms isolated most frequently from patients with urogenital infection are Chlamydia trachomatis (9). Lange et al. noted that it was found, as expected, that the erythrocyte sedimentation rate in the 1st hour was significantly higher in the infected group (10). Butrimeine et al. concluded that in active reactive arthritis of urogenital origin, inflammation of the urogenital tract was present in the majority of patients (11).

Levitt et al. found that both human biovars of Chlamydia trachomatis were able to productively infect primary cultures of fetal rat brain cells (12). They also found that infected brain cells released bacteria that reinfected McCoy cells as well as other cultured brain cells (12). In human, intrauterine infection of Chlamydia trachomatis can cause infantile brain lesion. The confirmation of those cases can be based on polymerase chain reaction test (13). Of interest, Buka et al. tested the hypothesis that maternal infections during pregnancy are associated with the subsequent development of schizophrenia and other psychoses in adulthood (14). According to their work, the offspring of mothers with elevated levels of total IgG and IgM immunoglobulins and antibodies to Chlamydia trachomatis were not at increased risk for the development of schizophrenia and other psychotic illnesses in adulthood (14). However, Fellerhoff et al. reported a discordant finding (15). Therefore, there is still a need for further research in this area.

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