

As NAATs for *C. trachomatis* are being used more often, increasing numbers of cases of LGV proctitis are being recognized in MSM. Such patients present with anorectal pain and mucopurulent, bloody rectal discharge. Sigmoidoscopy reveals ulcerative proctitis or proctocolitis, with purulent exudate and mucosal bleeding. Histopathologic findings in the rectal mucosa include granulomas with giant cells, crypt abscesses, and extensive inflammation. These clinical, sigmoidoscopic, and histopathologic findings may closely resemble those of Crohn's disease of the rectum.

The most common presenting picture in heterosexual men and women is the *inguinal syndrome*, which is characterized by painful inguinal lymphadenopathy beginning 2–6 weeks after presumed exposure; in rare instances, the onset comes after a few months. The inguinal adenopathy is unilateral in two-thirds of cases, and palpable enlargement of the iliac and femoral nodes is often evident on the same side as the enlarged inguinal nodes. The nodes are initially discrete, but progressive periadenitis results in a matted mass of nodes that becomes fluctuant and suppurative. The overlying skin becomes fixed, inflamed, and thin, and multiple draining fistulas finally develop. Extensive enlargement of chains of inguinal nodes above and below the inguinal ligament (“the sign of the groove”) is not specific and, although not uncommon, is documented in only a minority of cases. Spontaneous healing usually takes place after several months; inguinal scars or granulomatous masses of various sizes persist for life. Massive pelvic lymphadenopathy may lead to exploratory laparotomy.

Constitutional symptoms are common during the stage of regional lymphadenopathy and, in cases of proctitis, may include fever, chills, headache, meningismus, anorexia, myalgias, and arthralgias. Other systemic complications are infrequent but include arthritis with sterile effusion, aseptic meningitis, meningoencephalitis, conjunctivitis, hepatitis, and erythema nodosum (Fig. 25e-40). Complications of untreated anorectal infection include perirectal abscess; anal fistulas; and rectovaginal, rectovesical, and ischiorectal fistulas. Secondary bacterial infection probably contributes to these complications. Rectal stricture is a late complication of anorectal infection and usually develops 2–6 cm from the anal orifice—i.e., at a site within reach on digital rectal examination. A small percentage of cases of LGV in men present as chronic progressive infiltrative, ulcerative, or fistular lesions of the penis, urethra, or scrotum. Associated lymphatic obstruction may produce elephantiasis. When urethral stricture occurs, it usually involves the posterior urethra and causes incontinence or difficulty with urination.

Diagnosis • DETECTION METHODS Historically, chlamydiae were cultivated in the yolk sac of embryonated eggs. The organisms can be grown more easily in tissue culture, but cell culture—once considered the diagnostic gold standard—has been replaced by nonculture assays (Table 213-1). In general, culture for chlamydiae in clinical specimens is now performed only in specialized laboratories. The first nonculture assays, such as DFA staining of clinical material and enzyme immunoassay (EIA), have been replaced by NAATs, which are molecular

TABLE 213-1 DIAGNOSTIC TESTS FOR SEXUALLY TRANSMITTED AND PERINATAL CHLAMYDIA TRACHOMATIS INFECTION

Infection	Suggestive Signs/Symptoms	Presumptive Diagnosis ^a	Confirmatory Test of Choice
Men			
NGU, PGU	Discharge, dysuria	Gram's stain with >4 neutrophils per oil-immersion field; no gonococci	Urine or urethral NAAT for <i>C. trachomatis</i>
Epididymitis	Unilateral intrascrotal swelling, pain, tenderness; fever; NGU	Gram's stain with >4 neutrophils per oil-immersion field; no gonococci; urinalysis with pyuria	Urine or urethral NAAT for <i>C. trachomatis</i>
Women			
Cervicitis	Mucopurulent cervical discharge, bleeding and edema of the zone of cervical ectopy	Cervical Gram's stain with ≥20 neutrophils per oil-immersion field in cervical mucus	Urine, cervical, or vaginal NAAT for <i>C. trachomatis</i>
Salpingitis	Lower abdominal pain, cervical motion tenderness, adnexal tenderness or masses	<i>C. trachomatis</i> always potentially present in salpingitis	Urine, cervical, or vaginal NAAT for <i>C. trachomatis</i>
Urethritis	Dysuria and frequency without hematuria	MPC; sterile pyuria; negative routine urine culture	Urine or urethral NAAT for <i>C. trachomatis</i>
Adults of Either Sex			
Proctitis	Rectal pain, discharge, tenesmus, bleeding; history of receptive anorectal intercourse	Negative gonococcal culture and Gram's stain; at least 1 neutrophil per oil-immersion field in rectal Gram's stain	Rectal NAAT for <i>C. trachomatis</i> or culture
Reactive arthritis	NGU, arthritis, conjunctivitis, typical skin lesions	Gram's stain with >4 neutrophils per oil-immersion field; lack of gonococci indicative of NGU	Urine or urethral NAAT for <i>C. trachomatis</i>
LGV	Regional adenopathy, primary lesion, proctitis, systemic symptoms	None	Culture of LGV strain from node or rectum, occasionally from urethra or cervix; NAAT for <i>C. trachomatis</i> from these sites; LGV CF titer, ≥1:64; micro-IF titer, ≥1:512
Neonates			
Conjunctivitis	Purulent conjunctival discharge 6–18 days after delivery	Negative culture and Gram's stain for gonococci, <i>Haemophilus</i> spp., pneumococci, staphylococci	Conjunctival NAAT for <i>C. trachomatis</i> ; FA-stained scraping of conjunctival material
Infant pneumonia	Afebrile; staccato cough, diffuse rales, bilateral hyperinflation, interstitial infiltrates	None	Chlamydial culture or NAAT of sputum, pharynx, eye, rectum; micro-IF antibody to <i>C. trachomatis</i> —fourfold change in IgG or IgM antibody titer

^aA presumptive diagnosis of chlamydial infection is often made in the syndromes listed when gonococci are not found. A positive test for *Neisseria gonorrhoeae* does not exclude the involvement of *C. trachomatis*, which often is present in patients with gonorrhea.

Abbreviations: CF, complement-fixing; FA, fluorescent antibody; LGV, lymphogranuloma venereum; micro-IF, microimmunofluorescence; MPC, mucopurulent cervicitis; NAAT, nucleic acid amplification test; NGU, nongonococcal urethritis; PGU, postgonococcal urethritis.

Source: Reprinted with permission from WE Stamm: Chlamydial infections, in *Harrison's Principles of Internal Medicine*, 17th ed, AS Fauci et al (eds). New York, McGraw-Hill, 2008, p 1075.