

# Lymphogranuloma Venereum in a Pregnant Woman

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Lymphogranuloma venereum was diagnosed postpartum in a young black woman, who was a drug abuser. *Chlamydia trachomatis* was isolated from aspirate of a left inguinal mass, and the patient was also seropositive for human immunodeficiency virus. During hospitalization she was treated with ampicillin, gentamicin, and doxycycline. Her twin infant girls had no evidence of *C. trachomatis* infection. The mother was discharged from the hospital after partial resolution of the left inguinal mass and was lost to follow-up.

**WE REPORT A CASE** of lymphogranuloma venereum (LGV) in a pregnant woman. The diagnosis was confirmed by culture, direct fluorescent antibody staining (DFA), and enzyme immunoassay (EIA).

## Case Report

A 20-year-old black woman who was a user of "crack" presented to the King's County Hospital emergency room in active labor. She was at 38 weeks gestation (by date) and vaginally delivered twin girls weighing 2260 and 2390 g. The mother had had no prenatal care and had smoked "crack" the day before delivery. The infants had Apgar scores of 7 at 1 min and 8 at 5 min. After delivery fever was noted in the mother, and physical examination revealed a 2- × 3-cm left inguinal mass, which was tender and fluctuant. The overlying skin was slightly erythematous. A white, viscous vaginal discharge was also noted, but no genital lesions were found. The white blood cell count was 9600/mm<sup>3</sup>. A differential count was not done. The hemoglobin level was 11.6 mg/100 ml, and the hematocrit was 34.9%. The VDRL (Venereal Disease Research Laboratory) test and the PPD test were nonreactive.

On further questioning the patient stated that she had had the vaginal discharge for about three weeks before delivery and had noticed a mass in the left inguinal

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region a few days after onset of the discharge. The mass had enlarged rapidly during the following two weeks prior to delivery and became more painful and tender. She had been sexually active throughout her pregnancy and had numerous partners, mainly to support her drug habit. She had not seen any genital lesions nor felt any genital discomfort. She denied taking any antibiotics prior to admission to the hospital.

The mass was aspirated and evaluated by stains and cultures. No organisms were seen on gram or Ziehl-Nielsen stain, although numerous polymorphonuclear cells were present. Cultures for bacteria, mycobacteria, and fungi were negative. A fresh smear of the aspirate was evaluated by the direct fluorescent antibody test (Microtrak,® Syva, Palo Alto, CA). Cells and fluorescing elementary bodies characteristic of *C. trachomatis* were seen. A sample of the aspirate was also evaluated with an EIA (Chlamydiazyme®, Abbott Laboratories, North Chicago, IL) and was positive. Cultures using cycloheximide-treated McCoy cells were initially read as negative after incubation for 72 hr because of lysis of the monolayer; however, repeated cultures were positive for *trachomatis* after incubation for 48 hr. Cultures of the cervix for *C. trachomatis* were negative. No serum was sent for CF tests, but a serum specimen obtained at delivery was positive for antibodies to human immunodeficiency virus (HIV).

The in-hospital course of the infants was unremarkable. The mother was believed to have endometritis and was treated with ampicillin and gentamicin. She received seven days of therapy with doxycycline for the LGV infection. She was discharged after a total hospital stay of nine days. The mass was noted to be less swollen and tender, but it was still draining a white, purulent material at the time of discharge. The mother was lost to further follow-up, and we were unable to obtain any sera from her.

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The infants are in foster care and were examined at three months of age. Culture specimens obtained at that time from the nasopharynx, rectum, and vagina of both infants were negative for *C. trachomatis*. Sera were also obtained for a chlamydial antibody test (microimmunofluorescence, kindly performed by Dr. Julius Schachter, University of California, San Francisco); the titers were consistent with passive transfer. One infant had an IgG titer of 1:8 (reacting to serotypes DE, L1, L2), the other infant had no detectable microimmunofluorescence titer; neither infant had IgM antibody. Although, the mother was found to be HIV antibody-positive, we do not yet know the final HIV antibody status of her infants.

### Discussion

Lymphogranuloma venereum is not seen frequently in the United States but is probably underreported as a result of both misdiagnosis and inadequate diagnostic facilities.<sup>1</sup> The classic presentation of inguinal adenopathy, with or without a draining sinus, is uncommon in women, who are more likely to present with the genitoanorectal syndrome. Culture is the definitive diagnostic test, and the best specimen is an aspirate from a fluctuant bubo (if present), as was done with this patient. The aspirate must frequently be diluted to avoid toxic effects on the tissue culture monolayer. In addition, the cultures should be fixed and stained within 48 hr because of the shorter growth cycle of the LGV biovar as compared with oculogenital strains of *C. trachomatis*. Use of the currently available antigen detection methods for the diagnosis of LGV has been reported only once;<sup>2</sup> the DFA was used for detection of LGV serotype L2 in a rectal biopsy specimen from a patient with hemorrhagic proctitis. Alacoque et al.<sup>3</sup> used indirect fluorescent antibody staining with a polyclonal antibody to identify the organism in a biopsy specimen from a woman with vulvar esthiomene. It is of interest that two years before this diagnosis was made the woman described in their report had an infant delivered by cesarian section because of

the lesions, which had developed during pregnancy. The infant was normal. Although some early studies, done before tissue culture methods were available, reported the isolation of LGV from the cervix of asymptomatic women,<sup>1</sup> the recent literature<sup>4</sup> has no reports of this occurring in pregnant women, except for the case reported by Alacoque et al.<sup>3</sup> The LGV agent was not isolated from the cervix of the patient presented here. The EIA has not been evaluated for the diagnosis of LGV.

Infection with LGV in infants born to infected women also has not been addressed in the literature. The infants born to the patient presented here had no evidence, by either culture or serology, of chlamydial infection. However, we do not know whether infants delivered vaginally to women with LGV are at the same risk for complications (i.e., conjunctivitis and pneumonia) as are infants born to women infected with the oculogenital biovar of *C. trachomatis*.

An additional complication in our patient was the presence of HIV infection. Although she did not appear to have the acquired immune deficiency syndrome (AIDS) or the AIDS-related complex, the presentation and course of LGV could be influenced by concurrent HIV infection. Unfortunately, our patient was lost to follow-up. It is highly probable that she did not complete her therapy for LGV after discharge. Lifestyle has made it very difficult to control the spread of HIV infection as well as that of other sexually transmitted diseases among drug users.

### References

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