Bartholin’s Gland Abscess Caused by Neisseria sicca

STEPHEN A. BERGER,¹* ALFRED GOREA,¹ M. REUBEN PEYSER,² AND STEPHEN C. EDBERG³,⁴

Departments of Microbiology¹ and Obstetrics and Gynecology,² Tel-Aviv Medical Center, Tel Aviv, Israel; Clinical Microbiology Laboratories, Yale-New Haven Hospital, New Haven, Connecticut 06504; and Department of Laboratory Medicine, Yale University School of Medicine, New Haven, Connecticut 06510

Received 29 February 1988/Accepted 5 May 1988

Neisseria sicca has been reported to cause bacterial meningitis, endocarditis, pneumonia, and spondylitis. Surgical drainage from a Bartholin’s gland abscess contained N. sicca in pure culture. Neisseria species recovered from cerebrospinal fluid and gynecologic specimens must be carefully examined to avoid misidentification as meningococci or gonococci.

Human infection by the genus Neisseria is largely limited to bacterial meningitis and gonorrhea. A variety of nonpathogenic neisseriae are common commensals of the upper respiratory tract and are only rarely implicated as pathogens. We recently encountered Neisseria sicca as a cause of Bartholin’s gland abscess.

A 27-year-old female was hospitalized for pain and swelling in the left vulvar region. The prior gynecologic history was limited to spontaneous abortion in 1985 and successful medical therapy for a left Bartholin’s gland abscess in 1986. The patient was not known to be immunosuppressed. A recurrent left Bartholin’s gland abscess was identified and drained under caudal anesthesia (8), and the patient was treated with oral cephalaxin, 500 mg four times a day. She was well at the 6-month follow-up examination.

A Gram stain of surgical drainage material revealed large numbers of polymorphonuclear leukocytes and gram-negative diplococci. Abundant growth of dry and oxidase- and catalase-positive colonies was noted on chocolate agar (Hy Laboratories, Rehovot, Israel) after incubation for 24 h in 5% CO₂ at 35°C. The isolate was subsequently found to grow well in nutrient agar (Difco Laboratories, Detroit, Mich.) at 35°C and in sheep blood agar (Hy Laboratories) at 22°C. Glucose, maltose, sucrose, and fructose (but not lactose) were degraded in cystine-tryptic digest agar (Difco). Gas was produced from 0.1% KNO₂ in heart infusion broth (Difco) with a Durham tube. The isolate was DNase negative and failed to react with a DNA probe (Ortho Diagnostics, Raritan, N.J.) and monoclonal antibody (Pharmacia Diagnostics, Piscataway, N.J.) specific for Neisseria gonorrhoeae. Antimicrobial susceptibility was not tested. Both of our laboratories independently identified the organism as N. sicca (6).

When the initial Gram stain of surgical material was examined, we were tempted to issue a preliminary report of “probable gonorrhea.” Although Neisseria subflava has been rarely identified in cases of cervicitis (3), we have found no prior reports of Bartholin’s gland abscess caused by nonpathogenic neisseriae.

Important clues in the recognition of N. sicca include the following: (i) dry, adherent, and nonpigmented colonies, (ii) failure to grow on modified Thayer-Martin or New York City medium, (iii) production of acid from sucrose and fructose, and (iv) ability to reduce nitrite.

N. sicca has been implicated in cases of meningitis (2), pneumonia (1), endocarditis (4), urethritis (7), and spondylitis (5). Since such infections are more commonly associated with gonococci and meningococci, we urge careful identification of all neisseriae recovered from blood, cerebrospinal fluid, and gynecologic specimens.

LITERATURE CITED


* Corresponding author.