5. Wathne B, Holst E, Hovelius B, Mårdh PA. Vaginal discharge – comparison of clinical, laboratory and microbiological findings. Acta Obstet Gynecol Scand 1994; 73: 802–808.

Accepted March 3, 1999.

Carsten S. Petersen[1], Anne Grethe Danielsen[1] and Jan Renneberg[2]
Departments of [1]Dermato-venereology and [2]Microbiology, Bispebjerg Hospital, University of Copenhagen, DK-2400 Copenhagen, Denmark.

Methicillin-resistant Staphylococcus aureus Non-gonococcal Urethritis

Sir,

Non-gonococcal urethritis is one of the commonest sexually transmitted diseases. The aetiological agents include *Chlamydia trachomatis*, *Ureaplasma urealyticom*, *Trichomonas vaginalis* and *Mycoplasma genitalium* (1). The case presented here is an uncommon occurrence of Methicillin-resistant *Staphylococcus aureus* (MRSA) non-gonococcal urethritis.

CASE REPORT

A 25-year-old unmarried man presented with urethral discharge and pain during micturition for the last 2 days. He had had a single unprotected penovaginal sexual encounter with a female sexworker 5 days earlier. He had a history of many heterosexual exposures with multiple partners during the past 5 years, but no history of any previous sexually transmitted diseases. Examination revealed copious, purulent urethral discharge with marked erythema and oedema of the meatus, prepuce and penile skin. Gram-stained urethral smear showed many polymorphonuclear cells, gram-positive cocci but no Gram-negative diplococci. Urethral discharge cultures were put on Modified Thayer-Martin medium, Chocolate agar, MacConkey agar and Brain Heart Infusion agar supplemented with haemin and vitamin K. Cultures were negative for *Neisseria gonorrhoeae*. Pure growth of *Staphylococcus aureus* was obtained, and showed antimicrobial resistance to penicillin, tetracycline, erythromycin, chloramphenicol, streptomycin, cephalexin, ceftriaxone, oxacillin and susceptibility to amikacin and vancomycin by stokes disc diffusion technique. The organism also demonstrated β lactamase production, NCCLS break-point oxacillin MIC of >2 μg/ml and susceptibility to amoxycillin-clavulanic acid (augmentin) disc thus indicating a low level methicillin resistance probably due to hyperproduction of β lactamase (2). *Chlamydia trachomatis* antigen detection by DIF test was negative. VDRL and TPHA were non-reactive and ELISA for HIV I and II was negative. The patient was given ceftriaxone 250 mg i.m. and showed no response when seen after 48 h. He was, then, treated with 2 tablets orally of amoxycillin 250 mg with clavulanic acid 125 mg (augmentin) every 8 h with marked improvement in symptoms and signs within 48 h and continued the medication for 10 days with clinical and microbial clearance both on smear and culture. His sexual partner did not attend for examination.

DISCUSSION

Staphylococcus aureus is not mentioned among the common aetiological agents for non-gonococcal urethritis (NGU), though it has been isolated and implicated in NGU patients (3–6) and also in patients with trichomonal urethritis (7). The present case is reported because of the uncommon occurrence of MRSA in NGU urethritis, which to the best of our knowledge has not been reported so far. With the first reports of MRSA in 1960s, its occurrence has now been recorded worldwide both as a nosocomial and community-acquired pathogen that is becoming progressively resistant to many widely used antibiotics (8, 9). Thus, occurrence of MRSA as a sexually transmitted pathogen assumes significance and is a matter of concern. *Staphylococcus aureus* infection is initiated when there is a break in the continuity of skin or mucosa. Promiscuous sexual behaviour in the present case probably increased the patient's risk of infection. This particular factor has not been explored in any previous study and needs to be examined in detail especially with MRSA causing NGU.

REFERENCES

1. Shahmanesh M. Problems with nongonococcal urethritis. Int J STD AIDS 1994; 5: 390–399.
2. Geha DJ, Uhl JR, Gustaferro CA, Persing DH. Multiplex PCR for identification of Methicillin-Resistant Staphylococci in the clinical laboratory. J Clin Microbiol 1994; 32: 1768–1772.
3. Lejamn K, Czabenowska BJ. Clinical and microbiological observations on nongonococcal infections of male and female genito-urinary tract. Br J Vener Dis 1961; 37: 164–169.
4. Pillai A, Deodhar L, Gogate A. Microbiological study of urethritis in men attending a STD clinic. Indian J Med Res 1990; 91: 443–447.
5. Hovelius B, Thelin I, Mårdh PA. Staphylococcus saprophyticus in the aetiology of nongonococcal urethritis. Br J Vener Dis 1979; 55: 369–374.
6. Oboho KO. Problems of venereal disease in Nigeria. 2. Staphylococcus aureus as a possible cause of non-gonococcal urethritis. Fam-Pract 1984; 1: 222–223.
7. Al-Sanori TM. The species attribution of Staphylococci isolated from patients with trichomonal urethritis. Mikrobiol-Z 1995; 57: 63–69.
8. Barber M. Methicillin-resistant staphylococci. J Clin Pathol 1961; 14: 385–393.
9. Brumfitt W, Hamilton-Miller J. Methicillin-resistant Staphylococcus aureus. N Engl J Med 1989; 320: 1188–1196.

Accepted February 26, 1999.

P. Sharma[1] and A. Singal[2]
Departments of, [1]Microbiology and [2]Dermatology, University College of Medical Sciences & Guru Teg Bahadur Hospital, Delhi 110095, India.