

chomatis might have been isolated from 11 men in this group (N = 80) but they could effectively be identified by routine test for chlamydial infection.

In addition, has the time come to review the definition of PGU and should we not exclude those patients who are proven to have genital chlamydial infection, from this condition? It seems neither justifiable nor scientific to include such a specific and proven clinical entity under the umbrella of a rather non-specific condition like PGU or non-specific urethritis (NSU). The current DHSS coding system (KC 60) for patients attending genitourinary medicine clinics, in this respect, has shown a move in the right direction.

I agree with the authors that routine test for genital chlamydial infection should always be performed and as shown in the survey by the Royal College of Physicians Committee on Genitourinary Medicine³ this facility is very widely available. Interestingly only one fifth of the clinicians in this survey, thought that patients with gonorrhoea should be given anti-chlamydial treatment.

D MANDAL

Department of Genitourinary Medicine,
Bolton General Hospital,
Minerva Road,
Farmworth,
Bolton BL4 0JR,
UK

- 1 McLean KA, Evans BA, Lim JMH, Azadian BS. Postgonococcal urethritis: a double blind study of doxycycline vs placebo. *Genitourin Med* 1990;66:20-3.
- 2 Easmon CS. The changing pattern of antibiotic resistance of *Neisseria gonorrhoeae* (Editorial). *Genitourin Med* 1990;66:55-6.
- 3 Royal College of Physicians Committee on Genitourinary Medicine. Chlamydial diagnostic services in the United Kingdom and Eire: current facilities and perceived needs. *Genitourin Med* 1987;63:371-4.

McLean, Evans, and Azadian reply:

Concern about the possible over use of tetracycline in the routine management of patients with gonococcal infection was one of the reasons for our study. Since the study began tetracycline resistance in gonococci has been increasingly reported.^{1,2}

With regard to Dr Mandal's enquiries about the further management of patients in the doxycycline-treated group, of the 30 patients with PGU at first follow-up, management consisted of oxytetracycline for one

week in 24, erythromycin stearate for one week in one, and no antibiotic therapy in five. Interestingly, of the five patients who were not given further antibiotic therapy, three failed to reattend for follow-up and two had no evidence of PGU on follow-up.

Of the 30 patients with PGU at first follow-up, 22 (73%) returned for second follow-up at approximately 28 days. Of the 22, 10 (45%) continued to have evidence of PGU despite antibiotic therapy as outlined above. These patients were given further courses of oxytetracycline or erythromycin and either had apparent cure (7) or failed to reattend (3).

Patients were advised by both the doctor and the health adviser to abstain from sexual intercourse until apparent cure, but it was impossible to be sure if this advice had been followed in all cases.

We are unable to give information on the chlamydial isolation rates in female partners from this study.

The terminology of urethritis remains controversial. The term non-specific urethritis (NSU) is unhelpful and should probably be discarded. However, "umbrella" terms such as non-gonococcal urethritis (NGU) and PGU will remain necessary until chlamydial testing becomes universally available and until the aetiology of the remaining cases of urethritis becomes known. We would not propose further confusion in terminology by referring to NGNCU (non-gonococcal, non-chlamydial urethritis).

- 1 Waugh MA, Lacey CJN, Hawkey PM, Heritage J, Turner A, Jephcott AE. Spread of *Neisseria gonorrhoeae* resistant to tetracycline outside the United States of America. *Br Med J* 1988;296:898.
- 2 Van Klingeren B, Dessens-Kroon M, Verheuvell M. Increased tetracycline resistance in gonococci in The Netherlands. *Lancet* 1989;ii:1278.

Recurrent genital tract infections: a result of induced immunosuppression?

Sonnex¹ has reviewed various studies examining the immunopathogenesis of recurrent genital tract infection. Although the author did not mention bacterial vaginosis (BV), we believe that this syndrome may, to some degree, compromise normal mucosal immunity.

We found that in women without BV, the endogenous vaginal lacto-

bacilli were coated with IgG and IgA, whereas the bacteria found in the vaginal fluid of women with BV had either an IgA coating or no coating at all.² In addition, tests indicate that IgG and IgA proteases are produced by some strains of *Bacteroides melaninogenicus* and *B asaccharolyticus* isolated from women with BV.³ Another study has shown that some bacteroides antigens are able to retard polymorphonuclear leukocyte locomotion.⁴

As the *Bacteroides spp.* constitute a significant component of the vaginal flora of women with BV,⁵ the potential for altering the local immune responses appears significant.

These observations may be related to the pathogenesis of BV. Further, the reduction in the immune defences of the vaginal mucosa is likely to be linked to treatment failures found in recurrent or recalcitrant BV. Also worth consideration is the possibility that an immuno-compromised mucosa may make the host more susceptible to agents such as chlamydia and papillomavirus.

Further assessment of these observations is necessary before the full effect of BV on vaginal mucosal defences can be defined.

ER SMITH
JH GLASSON
Institute of Medical and
Veterinary Science,
Frome Road, Adelaide,
South Australia 5000
WH WOODS
School of Pharmacy and Medical
Laboratory Science,
South Australian
Institute of Technology,
North Terrace, Adelaide,
South Australia 5000

- 1 Sonnex C. Recurrent genital tract infection: a result of induced immunosuppression? *Genitourin Med* 1989; 65:372-5.
- 2 Glasson JH, Woods WH, Atkinson HM. Immunoglobulin coating patterns on human vaginal bacteria. *Austr J Med Lab Sci* 1986;7:127-9.
- 3 Glasson JH, Woods WH. Immunoglobulin proteases in bacteria associated with bacterial vaginosis. *Austr J Med Lab Sci* 1988;9:63-5.
- 4 Adamu SA, Sperry JF. Polymorphonuclear neutrophil chemotaxis induced and inhibited by *Bacteroides spp.* *Infect Immunity* 1981;33:806-10.
- 5 Spiegel CA, Amsel R, Eschenbach D, Schoenknecht F, Holmes KK. Anaerobic bacteria in non-specific vaginitis. *N Engl J Med* 1980; 303:601-7.

Correction The Notice (*Genitourin Med* 1990;66:307) should have been headed "Northern Genito-Urinary Physicians Colposcopy Group".