

Correspondence

TO THE EDITOR, *British Journal of Venereal Diseases*

Vancomycin sensitive penicillinase producing *Neisseria gonorrhoeae*

Sir,

Since the introduction of selective antibiotic-containing media for cultural isolation of *Neisseria gonorrhoeae*,¹ vancomycin sensitive strains, which fail to grow on such media, have been reported to form 3-10% of the total isolates.²⁻⁴ We have recently studied 78 isolates from men with urethral gonorrhoea in Sheffield to determine the local prevalence of such strains.

Urethral swabs from patients were inoculated on to "split plates" consisting of non-selective and selective medium. The non-selective medium comprised Oxoid gonococcal agar base with Oxoid "Vitax" growth supplement and 10% lysed horse blood. The selective medium was similar and additionally contained VCNT antibiotic supplement (vancomycin 3 µg/ml, colistin 7.5 mg/ml, nystatin 12.5 mg/ml, trimethoprim 5 µg/ml).

Inoculated plates were incubated at 37°C in 10% CO₂ for up to 48 hours. *N gonorrhoeae* was identified by oxidase reaction, Gram stain, and carbohydrate utilisation using serum free agar slopes.

We found three of 78 (3.9%) isolates to be sensitive to vancomycin. All the patients had been infected outside Sheffield, one each in London, Scotland, and Bangkok. The isolate from the last patient was found to be resistant to 2 µg penicillin and ampicillin discs in susceptibility testing, and β-lactamase production was shown by Oxoid detection strip. The isolate was sensitive to tetracycline, erythromycin, spectinomycin, and cefuroxime as well as to vancomycin.

The increase in β-lactamase producing gonococci in the United Kingdom⁵ and more recently the emergence of such strains which are additionally resistant to spectinomycin,⁶⁻⁹ demands that the presumptive microscopic diagnosis of gonorrhoea is confirmed by subsequent cultural isolation of *N gonorrhoeae* and antimicrobial sensitivity testing to facilitate their epidemiological monitoring. That β-lactamase producing organisms may also be vancomycin sensitive gives additional support to those workers who suggest that both selective and non-selective media should be

inoculated in parallel for the primary isolation of *N gonorrhoeae*.²

Yours faithfully,

M D Talbot

R C Spencer

G R Kinghorn

Departments of Genitourinary Medicine and Bacteriology,
Royal Hallamshire Hospital,
Sheffield S10 2JF

References

1. Thayer JD, Martin JE. Improved medium selective for cultivation of *N gonorrhoeae* and *N meningitidis*. *Publ Health Rep* 1966; **81**:559-62.
2. Reyn A, Bentzon MW. Comparison of a selective and a non-selective medium in the diagnosis of gonorrhoea to ascertain the sensitivity of *N gonorrhoeae* to vancomycin. *Br J Vener Dis* 1972; **48**:363-8.
3. Phillips I, Humphrey D, Middleton A, Nicol CS. Diagnosis of gonorrhoea by culture on a selective medium containing vancomycin, colistin, nystatin and trimethoprim (VCNT). *Br J Vener Dis* 1972; **48**:287-92.
4. Windall JJ, Hall MM, Washington JA, Douglas TJ, Weed LA. Inhibitory effects on *Neisseria gonorrhoeae* in Thayer Martin medium. *J Infect Dis* 1980; **142**:775.
5. McCutchan JA, Adler MW, Berrie JRH. Penicillinase producing *Neisseria gonorrhoeae* in Great Britain 1977-81: alarming increase in incidence and recent development of endemic transmission. *Br Med J* 1982; **285**:337-40.
6. Ashford WA, Adams HJU, Johnson SR *et al*. Spectinomycin resistant penicillinase producing *Neisseria gonorrhoeae*. *Lancet* 1981; **ii**:1035-7.
7. Eason CSF, Ison CA, Bellinger CM, Harris JRW. Emergence of resistance after spectinomycin treatment for gonorrhoea due to β-lactamase producing strain of *Neisseria gonorrhoeae*. *Br Med J* 1982; **284**:1604-5.
8. Anonymous. Spectinomycin resistant β-lactamase producing *Neisseria gonorrhoeae*. *Communicable Disease Report* 82/31. 1. London: Public Health Laboratory Service, 1982.
9. Anonymous. Spectinomycin resistant β-lactamase producing *Neisseria gonorrhoeae*. *Communicable Disease Report* 82/37. 4. London: Public Health Laboratory Service, 1982.

TO THE EDITOR, *British Journal of Venereal Diseases*

Hepatitis B virus infections in homosexual men

Sir,

We were interested to know if the incidence of hepatitis B infection in homosexual men in a provincial genitourinary clinic was similar to that seen in the London area.¹ From January 1980 to December 1981 blood specimens were taken from all homosexual men attending the clinic at the Bristol Royal Infirmary. Hepatitis B surface

antigen (HBsAg) was detected by reverse passive haemagglutination and confirmed by immune electron microscopy. All HBsAg positive patients were followed up and had serology and liver function tests assessed serially. Patients showing HBsAg positive results for six months or more were defined as having chronic hepatitis B virus (HBV) infection and tested for hepatitis B e antigen (HBeAg) and anti-hepatitis B e antibody (anti-HBe) by radioimmunoassay at the virus reference laboratory, Central Public Health Laboratory, Colindale. Patients with chronic HBV infection and abnormal liver function tests were referred to the medical unit.

Altogether 599 homosexual men were tested for HBsAg on 748 occasions. Eighteen (3.0%) men were found to be HBsAg positive once or more. All these men were British caucasian, as were 97% of the group. Five patients had signs and symptoms of acute hepatitis, four caused by hepatitis B virus (HBV) and one by hepatitis A virus.

Fourteen of the 594 (2.4%) patients without jaundice were found to be HBsAg positive on screening; all except one were followed up for a two year period. Ten (71%) of these patients with chronic HBV infection were HBeAg positive and anti-HBe negative while four (29%) possessed anti-HBe and were HBeAg negative. Ten of these patients had abnormal liver function tests and five of them had liver biopsies performed at this hospital. One of the biopsies showed chronic active hepatitis and the other four chronic persistent hepatitis.

The notes of all patients screened in the study were carefully examined for previous diagnoses of syphilis or gonorrhoea. Nine of 18 HBsAg positive patients had a history of syphilis compared with 136 of 581 HBsAg negative patients. In our group there was a significant correlation (p<0.05) between confirmed HBV infection and a past history of syphilis.

The incidence of HBV infection in this group of homosexual men studied in Bristol was broadly comparable with data from central London.^{1,2} This contrasts with a report from Sheffield³ where an incidence of 0.1% was found. We were interested to observe symptomatic acute hepatitis B with readily detectable clinical signs in four patients. Some authorities have found overt clinical hepatitis to be uncommon in homosexual men.⁴ A high proportion of men with chronic HBV infection were HBeAg positive and therefore highly infectious. We consider our data reinforce the need for

screening for HBV infections in homosexual men in large urban areas. In our patients an association of hepatitis B virus infections with syphilis was noted. This seems to emphasise the venereal nature of HBV infections.

Yours faithfully,
C J N Lacey
J D Meaden
S K R Clarke

Department of Genitourinary Medicine,
The General Infirmary at Leeds,
Great George Street,
Leeds LS1 3EX

References

1. Ellis WR, Murray-Lyon IM, Coleman JC, et al. Liver disease among homosexual males. *Lancet* 1979; i: 903-5.
2. Lim KS, Catterall RD, Simon R, Dane DS, Briggs M, Tedder RS. A reservoir of hepatitis B. *J Infect* 1979; 1: 163-70.
3. Triger DR, Nuttal PA, James V, Kinghorn GR. Liver disease in HBsAg carriers. *Lancet* 1982; i: 346.
4. Catterall RD, Dane DS. The sexual transmission of the hepatitis B virus. In: Harris JRW, ed. *Recent advances in sexually transmitted diseases*. Edinburgh: Churchill Livingstone, 1981: 251-9.

TO THE EDITOR, *British Journal of Venereal Diseases*

Penicillinase producing *Neisseria gonorrhoeae* in eastern India

Sir,
With the exception of one case from Madras¹ penicillinase producing strains of *Neisseria gonorrhoeae* (PPNG) have not been reported from India.

Between August 1979 and November 1982 we isolated 117 strains of *N gonorrhoeae* from patients with gonorrhoea who attended the University Hospital, Varanasi. The organisms were isolated on Chacko-Nair media² and identified by sugar fermentation tests using serum agar broth. The minimum inhibitory concentration (MIC) for each strain was determined; organisms having a MIC of penicillin of ≥ 0.25 IU/ml were regarded as resistant and tested for penicillinase production.³ Isolates from patients who were treated unsuccessfully with 4.8 million units of procaine penicillin given with 1 g of probenecid orally were also tested for penicillinase production.

Of the 177 isolates, 42.3% had an MIC ≥ 0.25 IU/ml (0.15 μ g/ml). Six isolates had an MIC of >1 IU/ml and two an MIC >10 IU/ml. The last two isolates produced penicillinase.

Both patients from whom PPNG strains were isolated had had recent sexual contact in Varanasi itself; a common source of infection could not be traced. Contact tracing was not possible owing to non-cooperation by the patients, and the source of these β -lactamase producing strains remains unknown.

It is evident that there is a reservoir of PPNG strains in south east Asia and in Western countries. In view of the increase in the number of tourists in Varanasi, who have also visited other areas of the Far East, the isolation of such strains in this part of India is not surprising. Reports from Calcutta suggest that PPNG strains will soon emerge in that part of India. Workers there reported that 40% of patients treated with tetracycline failed to respond. This is very similar to the conditions that prevailed in south east Asia in 1976 before the emergence of PPNG strains.¹

It may be concluded that the present situation in India is ripe for the emergence of PPNG strains. The reports of two strains from an important tourist centre like Varanasi may have considerable impact on the subsequent epidemiology of gonococcal infection in India.

Yours faithfully,
K G Singh
Gurmohan Singh
S S Pandey
P Kaur

Section of Skin and Venereal Diseases,
Department of Medicine,
Institute of Medical Sciences,
Banaras Hindu University,
Varanasi 221005,
India

References

1. Sowmini CN. Penicillinase producing *Neisseria gonorrhoeae* infections. *Indian J Sex Transm Dis* 1981; 2: 39-41.
2. Chacko CW, Nair GM. Chacko-Nair egg enriched selective medium in the diagnosis of pathogenic neisseriae. *Br J Vener Dis* 1966; 44: 67.
3. Catlin BW. Iodometric detection of *Haemophilus influenzae*: β -lactamase rapid presumptive test for ampicillin resistance. *Antimicrob Agents Chemother* 1975; 7: 1265.

TO THE EDITOR, *British Journal of Venereal Diseases*

Non-specific vaginitis

Sir,
Our experience in Sheffield of women with non-specific vaginitis confirms the variability in the amount and consistency of the

vaginal discharge reported by Blackwell and Barlow (1982; 58: 387-93).

Detailed clinical and microbiological investigations suggest that, as in so many non-specific conditions, the common features of this condition represent a syndrome which may be caused by several bacterial species, alone or in combination, including *Gardnerella vaginalis*, *Bacteroides* species, and motile anaerobic vibrios. We have observed that the presence of motile vibrios seems directly related to the frothiness of the discharge. In the absence of vibrios, *G vaginalis* and other anaerobes are usually associated with a non-frothy, homogeneous, "flour-paste" discharge.

The authors also comment on the high frequency with which *G vaginalis* can be isolated from the urethras of male consorts of women with non-specific vaginitis. We have also been able to isolate *Gardnerella* and *Bacteroides* species from the subpreputial sac in male consorts, and microscopy of wet film preparations of subpreputial secretions has frequently shown carriage of motile vibrios. We suggest that investigations and treatment, where necessary, of male consorts is essential if the high relapse rate of non-specific vaginitis is to be reduced. The question of the most appropriate treatment in men, however, remains unanswered. Although some men, particularly those with long prepuces or those who pay little attention to hygiene, may develop a balanoposthitis,¹ the majority are asymptomatic. Whether antibiotic treatment is necessary, or merely the frequent application of soap and water alone is sufficient, requires further investigation.

G R Kinghorn*
B M Jones†

*Department of Genitourinary Medicine,
Royal Hallamshire Hospital,
Sheffield

†Department of Medical Microbiology,
University of Sheffield Medical School,
Sheffield

Reference

1. Kinghorn GR, Jones BM, Chowdhury FH, Geary I. Balanoposthitis associated with *Gardnerella vaginalis* infection in men. *Br J Vener Dis*, 1982; 58: 127-9.