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,
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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 an 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 ($0.15 \mu\text{g/ml}$). 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,
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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 sub-preputial sac in male consorts, and microscopy of wet film preparations of sub-preputial 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.

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