Br J Vener Dis 1983;**59**:406-11

Correspondence

TO THE EDITOR, *British Journal of Venereal Diseases*

Cefoxitin *v* procaine penicillin in the treatment of uncomplicated gonorrhoea

Sir,

We report the first British study comparing cefoxitin and procaine penicillin in the treatment of culture positive uncomplicated gonorrhoea.

Cultures were made on Birmingham General Hospital VCT medium[1]; Oxidase positive typical colonies of urethral and cervical isolates confirmed by Gram staining were accepted as *Neisseria gonorrhoeae* for the purpose of this study, but rectal and pharyngeal isolates were subjected to full identification. All isolates were screened for β-lactamase production,[2] and minimum inhibitory concentration tests were performed on pretreatment isolates.[3] Patients who were known to be allergic to β-lactam antibiotics, had hepatic or renal impairment, had a genital sore, were pregnant or lactating, or gave a history of taking antibiotics in the previous four weeks were excluded from the study.

A total of 223 men and 106 women were randomly assigned to treatment with either a) cefoxitin sodium 2 g in 2 ml of 1% lignocaine intramuscularly plus probenecid 1 g orally, or b) procaine penicillin 1·8 MU intramuscularly plus probenecid 1 g orally. Ideal follow up was at 3, 10, and 24 days, and the results obtained are shown in table I.

The results obtained with both regimes were comparable until the third follow up visit, when the higher default rate in the penicillin treatment group resulted in a statistically significant increase in the apparent failure rate compared with that of the cefoxitin group ($p<0·05$). The only patient with an infection caused by a penicillinase producing organism was in the penicillin treatment group. One man and 11 women with rectal infections and one woman with a pharyngeal infection were cured with cefoxitin. Injection site pain was reported in 23% of the cefoxitin group and 14·1% of the penicillin group. Other trivial side effects reported by patients in the cefoxitin group were as follows: pruritus and rash (2), rhinorrhoea (1), weakness (2), diarrhoea (2), numbness or pain in the legs (3), dizziness (1), vomiting (1), and fever (1).

TABLE I *Comparison of follow up attendance and positive cultures in patients treated with cefoxitin v penicillin*

	No who attended follow up visits (no of positive cultures)		
Treatment	*1st*	*2nd*	*3rd*
Cefoxitin (n = 164)	140 (4)	98 (3)	64 (5)
Penicillin (n = 165	131 (2)*	94 (2)	44 (10)

*includes one PPNG infection.

The majority (85·8%) of the pretreatment isolates in Birmingham up to the completion of the study (February 1981) were penicillin sensitive (MIC<0·03 μg/ml). The table (table II) of published results shows that this drug has still not been fully evaluated in relation to PPNG strains and pharyngeal infections.

Yours faithfully,

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TABLE II *Comparison of published data showing failure rates for cefoxitin in treatment of gonorrhoea*

	Sites of infection in						
	Men			*Women*		*Strains isolated*	
Studies by	*Urethra*	*Rectum*	*Pharynx*	*Urethra/cervix/rectum*	*Pharynx*	*PPNG*	*Non-PPNG*
Beng *et al* (1979)[4]	0/54					0/21	0/27 0/6 NT
Jones *et al* (1979)[5]	0/10	0/1	1/2	0/25	3/5		4/25
Siegel *et al* (1979)[6]	1/59		1/2				1/59
Greaves *et al* (1983)[7]	6/123	1/21	0/1	4/75			11/220
Total no	7/246	1/22	2/5	4/90	3/5	0/21	16/337
Success rate (%)	97·3	25·5	60	95·6	40	100	95·3

NT = not tested; PPNG = penicillinase producing *Neisseria gonorrhoea*.