Correspondence

TO THE EDITOR, *British Journal of Venereal Diseases*

Quantitative microhaemagglutination assay for *Treponema pallidum* antibodies in humans

Sir,

Tight and White[1] in their paper entitled "Quantitative microhaemagglutination assay for *Treponema pallidum* antibodies in experimental syphilis" discuss certain shortcomings of studies on the quantitative microhaemagglutination assay for *Treponema pallidum* antibodies (MHA-TP) in humans. These authors suggest that data on specific areas requiring further study, which include the effect of treatment on MHA-TP titres and the value of the MHA-TP as an indicator of reinfection, could be readily obtained by performing sequential quantitative non-treponemal and MHA-TP tests on follow-up sera. Such follow-up has been standard policy in Edinburgh for several years and some information relevant to Tight and White's suggestions has already been published.[2] We would like to summarise the main points.

The response of the MHA-TP to treatment was studied in 61 cases of early infectious syphilis. In none of the 55 cases of early syphilis in which the pre-treatment MHA-TP result was positive did the test give a consistently negative result after treatment. In primary and early latent syphilis it was not possible to demonstrate any significant changes, but in some cases of secondary syphilis a significant and rapid fall in MHA-TP titre occurred with treatment. In general the titre decreased significantly within four months of treatment for secondary syphilis to a level which was maintained more or less steady thereafter. This finding is at variance with the suggestion of O'Neill[3] that the post-treatment MHA-TP titre reflects the stage at which the disease was arrested, declining subsequently only slowly, if at all, with time.

Reinfection with secondary syphilis occurred in three cases; in each case there was a significant increase in MHA-TP titre and a parallel increase in the Venereal Disease Research Laboratory (VDRL) test titre. Because of the interval between follow-up tests it was impossible to say whether the increase in MHA-TP titre preceded that of the VDRL test or vice versa. Two of the reinfected patients had shown significant reductions in the MHA-TP titre after treatment of the original infection. After treatment of the reinfection the titres again fell, although more slowly, and in one a fall was not observed until 12 months after treatment.

Yours faithfully,

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2. Hunter JM. The effect of treatment on the *Treponema pallidum* haemagglutination test in early syphilis. *Scot Med J* 1979;24:307-12.
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TO THE EDITOR, *British Journal of Venereal Diseases*

Antenatal screening for syphilis

Sir,

The results of the *Treponema pallidum* haemagglutination (TPHA) test and the Venereal Disease Research Laboratory (VDRL) test were reviewed on sera from 7140 antenatal patients seen between 1976 and 1979. The fluorescent treponemal antibody-absorbed (FTA-ABS) test was used when confirmation was required (table). The serological methods have been described.[1 2]

The TPHA test gave a positive result for 53 (0·74%) sera, although the FTA-ABS test failed initially to confirm the TPHA reaction in 15 of those 53 sera in which it was the only test giving a positive result. On testing further samples, the positive TPHA results could not be reproduced in two patients and the FTA-ABS test result remained negative; in four patients a positive TPHA test result was found in association with a positive FTA-ABS reaction, while subsequent samples were not received from the remainder. Thus, 42 (0·59%) patients had definitely confirmed positive treponemal test results. If the TPHA test had not been used for screening, only 17 (0·24%) sera would have given a positive result, a figure comparable to that found by Hare[3] on sera from the antenatal patients attending the nearby Queen Charlotte's Hospital, London.

TABLE *Number of sera with positive test results*

Serological test results	*No*	*%*
TPHA+, FTA/ABS+, VDRL−	21	32·3
TPHA+, FTA/ABS−, VDRL−	16*	24·6
TPHA+, FTA/ABS+, VDRL+	12	18·5
TPHA+, FTA/ABS−, VDRL+	5	7·7
TPHA−, FTA/ABS+, VDRL+	0	
TPHA−, FTA/ABS+, VDRL−	0	
TPHA−, FTA/ABS−, VDRL+	11	16·9
Total	65	100

+ Positive − negative
*Includes one doubtful positive TPHA result at a serum dilution of 1/80.

Biological false-positive VDRL reactions were found in 11 (0·15%) sera. The patients whose sera were reactive in the VDRL test alone were not treated; they had normal deliveries at term, and in none of the offspring was there any evidence of congenital syphilis. Five patients in whom only the TPHA test gave a positive result likewise had normal deliveries and offspring. The remaining four such cases were untraceable.

Titres of the VDRL reaction and the TPHA test (from 80 upwards) tend to correspond[4] but both tests do not always give a positive result for the same serum from patients with primary syphilis. Lesinski and his colleagues[5] showed that in 57 patients with primary syphilis there were six (11%) whose sera gave a positive VDRL reaction but a negative TPHA test result. The TPHA test result may not only be positive when the VDRL test result is negative in primary syphilis,[5] but exceptionally the TPHA test result may