MARITAL BACTERIAL URINARY INFECTION IN MEN

COL B SIMPSON, MA, MB, FRCP Ed, L/RAMC

Cambridge Military Hospital, Aldershot

SUMMARY: A prospective survey of servicemen showed that bacterial urinary infection is commoner in married than in single men, and may be associated with urinary infection in the wife.

Introduction

Instances of a soldier contracting bacterial urinary infection (UTI) soon after his wife has been similarly affected, and the absence of references in textbooks and journals to this form of marital infection, prompted a prospective study of servicemen aged 18 to 45 years who were admitted with a first attack of UTI to the British Military Hospital Munster, British Army of the Rhine (BAOR), over a two and half year period.

Patients had dysuria (accompanied in a half by loin pain and tenderness), pyuria or haematuria, and significant bacteriuria. Excluded were men with urethritis or recent surgical exploration of the urinary tract.

Men with UTI were normally admitted to the medical unit. Perusal of surgical records, and examination of patients referred to the Genito-urinary clinic with dysuria but no other evidence of urethritis, did not yield further cases.

Findings

Fourteen men filled the criteria of UTI. Thirteen (aged 21 to 34 years, mean 26 years) came from a population of 4530 men accompanied in BAOR by their wives, and only one (aged 29 years) from a population of 4150 unaccompanied men, the great majority of whom were single. The difference in incidence is significant ($0.001 < p < 0.01$). The organism was *E coli* in 13 and *B proteus* in one. Intravenous urography was performed in 13 and gave abnormal results in two — a kidney stone, and a small kidney with vesico-ureteral reflex. One other man was found to have diabetes mellitus. The blood urea level was normal in all cases.

The wives of five of the 13 married men had previously contracted symptoms of UTI, two to eight weeks before the husband's illness, and a further man presented two weeks after his infant daughter was admitted to hospital with UTI. Four of the affected wives provided mid-stream urine specimens when their husbands were admitted, and three showed a significant growth of *E coli*, sensitive to commonly used antibacterial drugs (as in the husbands). Two of these three were pregnant; the third woman's husband had a small kidney and reflux.

The UTI in three husbands closely followed the resumption of sexual activity after a break of several months; one wife had previously had dysuria. The single man denied recent intercourse.

Statistical credibility

(a) If it is assumed that three single and no married men with UTI were missed, then the addition of these subjects would reduce the level of significance of the difference in incidence to below 5%. The instances of UTI occurring in husband and wife would still be of interest.

(b) The number of men treated outside hospital for UTI, and so the true proportions of married and single men with UTI, are not known. There is in military practice a bias to the admission of single men, as even relatively minor conditions are difficult to treat in barracks, so it is unlikely that cases treated outside hospital included an excess of single men.

Discussion

It is common experience that UTI in women may follow sexual intercourse. These findings show that UTI is commoner in married than in single men, and in a married man may follow UTI in his wife. It is likely that sexual activity is the main factor, and regular sexual activity is the norm for the married soldier but is less common in the single soldier in BAOR, particularly of course with a pregnant woman.

Practically, the findings imply that when a man contracts UTI, enquiry should be made of his wife's recent health and her urine examined, especially if she is pregnant. Further, it may be profitable, when UTI occurs in the wife of a man who is known to be predisposed to UTI, to test his urine and to consider prophylactic therapy.

Acknowledgements

I am grateful to Mr G D Samuel of the Army Personnel Research Establishment, Farnborough, for statistical analysis. The X^2 test with Yates' correction was used.