many of these women have no recognised predisposing factors.

I therefore carried out a study to evaluate the possible role of sexual partners in the maintenance of such a high incidence of vaginal candidosis in our women. I examined 20 husbands or sexual partners of women with diagnosed candidal vaginitis, and collected three different specimens (urethral secretion, early morning urine, and seminal fluid) from each of the men. Moist sterile cotton tipped swabs were used to obtain urethral secretion, which was immediately squeezed out into a sterile phosphate buffer solution using a vortex mixer, and then centrifuged. A drop of the centrifuged deposit was examined by both wet film and Gram staining techniques for evidence of yeast cells. The remaining deposit was cultured on Sabouraud’s medium at 37°C, and any growth after 24-48 hours was Gram stained and examined microscopically as before. Both the early morning urine (collected in sterile urine bottle) and seminal fluid (collected in sterile universal container) were also centrifuged and examined as for the urethral secretion. Diagnosis of infection by Candida spp was based on the presence of budding yeast cells or pseudohyphae in wet film and Gram stained smears of the centrifuged deposits of various specimens. This was confirmed by positive cultures of Candida spp on Sabouraud’s agar plates.

The table shows the isolation of yeast in relation to the type of specimen. All the men were circumcised and none had any sign of balanitis. Although about half of the men admitted to vague symptoms of urethritis, only three showed any sign at all, and all three had yeasts in their urine and seminal fluid specimens. Where yeasts were isolated from the urethral swab and urine, they were also found in the seminal fluids. Many seminal fluids, however, were positive in the absence of yeast at the other sites.

The role of sexual transmission as a means of vaginal inoculation and colonisation has undergone considerable discussion within the past few years. Most studies, however, have centred on external penile colonisation, usually in the coronal sulcus, rather than in the urethra and seminal fluid, and have been mostly in uncircumcised men. The result obtained in this study shows that examination of seminal fluid for Candida spp is a better means of establishing its prevalence in the male urogenital tract. Yeasts that find their way into the urogenital tract are not always flushed out during micturition. Candidal invasion of the posterior urethra is recognised, and so also is prostatic invasion. Sexual transmission may yet be a more important factor in vulvovaginal candidosis, especially the recurrent forms, than has been previously recognised; seminal fluid acting as the source of inoculum during the powerful muscular contraction attending orgasm. I therefore recommend that, in evaluating the role of sexual transmission in the epidemiology of candida vaginitis, investigation of the seminal fluid should take precedence over the traditional urethral and urine examinations.

Yours faithfully,
B O Ogumboji
Department of Microbiology and Parasitology,
Faculty of Health Sciences,
University of Ilorin,
Ilorin, Nigeria

References

TO THE EDITOR, Genitourinary Medicine

Use of slide latex agglutination test for rapid diagnosis of vaginal candidosis

Sir,
The recent letter from Sulaiman et al describing their results with the latex agglutina-
tion test is, in certain key respects, at variance with our own wide experience of this product. The candida slide test is intended as a rapid aid to the “patient-side” diagnosis of vulvovaginal candidosis. In this sense the only alternative is direct microscopy, as culture isolation requires at least 48 hours. The latex slide test is typically appreciably more sensitive than direct microscopy, as evidenced by Dr Sulaiman’s study. In comparison with culture isolation, the latex test largely ignores symptomless (commensal) carriers and so, though sensitivty is slightly lower, the diagnostic positive predictive value is superior. In Dr Sulaiman’s study 21% of culture positives came from symptomless women. Our own studies have suggested that the incidence of candida culture positive symptomless women can be considerably higher than this, though the only respect in which Dr Sulaiman’s data significantly conflicts with our own experience is in the number of “false” latex positives (nine out of 23).

During the course of clinical trials of over 1000 unselected women attending two lead-
ing departments of genitourinary medicine in the United Kingdom, the lowest recorded specificity was 95.4% and the typical specificity value was 97.98%. It is not readily apparent, from Dr Sulaiman’s report, whether any of the nine specimens “falsely” positive by latex agglutination were culture positive.

The latex agglutination test should be evaluated against a carefully considered definition of vulvovaginal candidosis, and our own trials were based upon the definition described by Dr Sulaiman. In view of the relatively low prevalence in unselected women, the performances of the various diagnostic criteria are best assessed in terms of sensitivity and predictive values. In such circumstances the latex agglutination test invariably exhibits a higher diagnostic efficiency than any other single criterion.

Yours faithfully,
D H Lewis

Mercia Diagnostics Ltd,
Guildford, Surrey

References

TO THE EDITOR, Genitourinary Medicine

Sir,
I should be much obliged if you would grant me the courtesy of your columns to thank the
Book review


The growing reputation of the subject of medical history in Canada will be greatly enhanced by this thorough piece of scholarship. That the subject should be given a social rather than a medical setting is justified.

For the first time, Canada's available archives concerning venereal diseases—the author deals solely with syphilis, gonorrhoea and chancre—have been widely scanned. The thoroughness of the work comes out clearly as the impediments to progress are dissected and delineated. Against a comprehensive understanding of contemporary events in Europe and America, Canada's evolving struggle for control of venereal disease is detailed step by cautious step. Mr Cassel shows a healthy respect for the limitations of the many primary as well as secondary sources he has consulted.

The earliest chapters reveal the extent of the problem of venereal disease: the inadequate training of individual doctors, the absence of any appreciation of the social determinants of venereal diseases, and the degree of ignorance in society. This was not only the state of affairs at the beginning of the period, in 1838/9, when Ricord in Paris was characterising syphilis and gonorrhoea in rational clinical terms; it continued with only minor improvements until the discovery of the gonococcus. Really dramatic changes had to await the first decade of the new century and the discovery of Treponema pallidum, the worldwide acceptance of the Wasserman test, and the manufacture of Salvarsan. Regarding the last, Canadian doctors with Government support, broke monopolies in its manufacture.

The early moves towards an identifiable control programme were led by doctors and rooted in diagnosis and treatment. An increasingly organised Canadian medical profession (with medical schools) began to realise, even before the first world war, that the attitudes of Canadians towards sex and sexually transmitted diseases were far from uniform. They were changing with immigration, industrialisation, urbanisation, and Canada's altering social as well as economic structure. Social awareness and impulses directed at social improvements were not lacking.

The crisis of epidemic levels of venereal disease in Canadian troops in Canada and in Europe, and the revelation that matters were no better in the civilian population at home, prompted energetic moves for improvements, firstly from Canada's Army Medical Corps. This was to spur Canada to much worthwhile endeavour after the war. Concepts of public and private health care changed. The role of Government in public health was redefined. Durkheim's "best for the greatest number" resulted in Canada's venereal disease control services being one of the foundation stones of its comprehensive Medicare system. The limitations of moral exhortations and legal sanctions were now understood. A nationwide educational programme based on an appreciation of the complex way that social factors and medical facts are so entwined as to be inseparately associated, was discussed and accepted by the public generally as well as in schools. That Canada's population in the 1920s must have been one of the best informed is reflected in the growing use of public clinics. Control of complications became evident and morbidity rates responded.

The author unfolds his history with clarity; he allows no ambiguities as he exhausts his sources. Understandably, one can find points for discussion; for example, here and there one has the feeling that he tends to treat social, sociological, and socialist policies as more or less identical. The author also does not fully appreciate that the doctors' insistance that the start of venereal disease control begins with science—in this case, sound diagnosis and treatment—and that the aim of the profession is to consistently replace remaining art with what is hard in soft sciences. He calls it, as we have for more than half a century, pragmatism.

The secret plague is an excellent source book whatever one's nationality. Do not be put off by the racy title. If you plan to read it on holiday, leave it until the second week. Cassel's exacting criticism of his archival material is exhausting, but exhilarating.

RS Morton