LETTERS TO THE EDITOR

Lymphatic filariasis—lest we forget

EDITOR,—Lymphatic filariasis is characterised by a wide range of clinical manifestations. In a non-endemic area the diagnosis may be missed unless the index of suspicion is high.

An 18 year old sexually active male presented with a progressively increasing painless nodular swelling in the right inguinal region of 4 months' duration. The patient had an unprotected vaginal contact with a commercial sex worker 6 months earlier. There was no history of genital ulcer or urethral discharge. The general health of the patient was preserved. Examination revealed enlarged right inguinal and external iliac lymph nodes, 1–3 cm in size, firm, mobile, non-tender, and matted with normal overlying skin. Examination of genital, anal, and buccal mucosae was normal. There was no other lymphadenopathy. A differential diagnosis of lymphogranuloma venereum (LGV) and tubercular lymphadenitis was considered. Complete blood count revealed mild leucocytosis and eosinophilia. Renal and hepatic functions, urinalysis, and chest x ray were normal. Mantoux test and VDRL were negative. A complement fixation test for chlamydia group specific antibody was negative. Fine needle aspiration cytology from the nodes revealed reactive hyperplasia with occasional giant cells and microfilariae of *Wuchereria bancrofti*. Nocturnal blood samples for microfilariae were negative.

The patient was given diethylcarbamazine 100 mg thrice daily for 2 weeks. The lymph nodes regressed and no relapse was observed in 6 months of follow up.

The differential diagnosis of inguinal lymphadenopathy in a sexually active male includes syphilis, genital herpes, chancroid, LGV, pyogenic adenitis, tuberculosis, and lymphoma.¹ In the present case a diagnosis of LGV was considered in view of a history of sexual contact, painless and non-suppurative lymphadenopathy not apparently preceded by a genital ulcer.

Demonstration of microfilariae was decisive in clinching the diagnosis of filariasis which was not considered in the differential diagnosis. Presentation with inguinal lymphadenopathy is a feature common to both LGV and filariasis. The most frequent manifestation of secondary stage of LGV in men is unilateral inguinal lymphadenopathy which does not suppurate in two thirds of cases.¹ Iliac lymphadenopathy often develops in LGV as was observed in our patient.² Painful enlargement of inguinal lymph nodes with fever is the usual presentation in lymphatic filariasis. Lymphangitis can accompany recurrent attacks. Other complications include orchitis, funiculitis, and epididymitis.^{3,4} These were, however, absent in our patient. It is suggested that lymphatic filariasis should be considered in differential diagnosis of inguinal lymphadenopathy even in areas which are not known to

be endemic for it. It is otherwise likely to be missed.

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Canary to sparrow; what is in a name?

EDITOR,—The Contagious Diseases Act of 1864 allowed for the compulsory arrest, examination, and treatment of women considered (by an all male board) to be of loose morals. Women were detained in the so called "Canary wards" and their identity made clear by the bright yellow garments they were made to wear.

In the year 2000, there is still perceived stigma and blame associated with the diagnosis of sexually transmitted infections (STIs) and this must be minimised if a screening programme for chlamydia is to be successful. It will help reduce stigma if people know and accept that it is not a disease of a few readily identifiable people but that it is common and easy to acquire. It has been estimated that one in 14 young people will acquire it at some time.

In the NHS chlamydia pilot screening programme in Wirral and Portsmouth we are confirming that this infection is indeed endemic. Information material for the pilot study clearly states that it is a very common infection. To reduce the element of blame, we have included testing of men in some settings and have introduced instead of sexually transmitted, the term "sexually shared infection."

We hope that by measures such as these, young people will avoid stigmatisation as "canaries."

We do not, however, suggest that you change the name of your journal again!

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Acceptability of home screening for chlamydial infection: some remaining issues

EDITOR,—In the recent article by Stephenson *et al*¹ the authors describe participation rates of 39% for women and 46% for men for home screening and comment "that this might form a useful component of a community based chlamydial screening programme in which non-responders could be offered opportunistic screening at the general practice." However, certain crucial issues remain unanswered. This acceptability survey was

done among women aged 18–25 years and men 18–30 years. What happens with people below the age of 18? We know that *Chlamydia trachomatis* prevalence is associated with young age, but can we also send home screening kits to 15 year olds? What about the parental opinions and legal implications—for example, for the partner of a *C trachomatis* positive youngster?

In two surveys performed in general practice in Amsterdam, Netherlands, using systematic and opportunistic screening, prevalence was strongly associated with young age but also with ethnicity. Among young Surinam-Antillian women aged <25 years, prevalences ranged from 5.4% in the systematic survey up to 22.4% in the opportunistic survey.^{2,3} In the systematic survey an unexpectedly high *C trachomatis* prevalence of 10% was found among young Surinam-Antillian men. Among the 15–19 year olds visiting our health centre in Amsterdam which is located in a multiethnic neighbourhood, half of the population having a Surinam-Antillian background, *C trachomatis* prevalence was 25%.⁴

Thus, the question is not only how acceptable home screening is for the youngest age group, who might be most at risk, but also how acceptable home testing is for people with different ethnic backgrounds and people living in low socioeconomic status and high risk environments.

We piloted a pharmacy assisted approach offering urine home testing to all sexually active women age 15–30 years who come to our pharmacy to collect their contraceptives. Since the start 4 months ago 189 people received an information leaflet and home test package together with their contraceptives. Fifty nine participated and sent their urine; four were positive (6.7%).⁵ The participation rate was 31%, lower than the reported rate for women in the article of Stephenson *et al*.

The assumption by the authors that people who do not participate for home screening will turn up for opportunistic screening at the general practice is, however, merely a hypothesis, and not a strong one, especially not for boys and men.

Tackling issues like risk perception and risk environment and changing healthcare seeking behaviours is not an easy task. Moreover, a community based *C trachomatis* prevention programme will require not only secondary prevention by active case finding but also primary prevention. What is needed is an integrated set of strategies, which are mutually reinforcing and that are age, sex, culture, and context specific. Quite a challenge!

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Nurse counselling for women with abnormal cervical cytology improves colposcopy and cytology follow up attendance rates

EDITOR.—A well organised cervical screening programme has considerable benefits; however, one negative aspect is anxiety associated with abnormal results. The NHSCSP guidelines state that an explanatory leaflet should be given to women with abnormal cytology and those being referred for colposcopy, with a verbal explanation wherever possible.¹ We assessed if there is any additional benefit from a verbal explanation, following written information, when an abnormal smear result is given, in understanding and future attendance for colposcopy and cytology follow up.

Between April and December 1998 we recruited 89 women with abnormal cytology. All women attending for results are given the NHSCSP leaflet "What your abnormal result means" if their smear shows borderline changes, mild, moderate, or severe dyskaryosis. The study women completed a questionnaire after reading the leaflet. A nurse (BH) then gave a verbal explanation about the smear result. They then completed the questionnaire again. Attendance for colposcopy and cytology follow up was recorded, default being defined as non-attendance without cancellation. Default rates were compared with other women with abnormal cytology during the same period. They were not included in the study as they attended when the specified nurse was not available. They had all received the leaflet but not a structured explanation.

The explanation for each woman took approximately 15 minutes. The results of the questionnaire before and after explanation are shown in table 1. There was a significant improvement in understanding and reduction in anxiety. The control group comprised 104 women. In the study group 65 required colposcopy; three (4.6%) defaulted, compared

with seven of 38 (18.4%) women not receiving a verbal explanation; $p = 0.03$ Fisher's exact test; OR 0.21 (95% CI 0.03–1.03). Of the study group, 81 should have attended for follow up cytology 6 months after colposcopy or smear showing borderline changes; 12 (15%) defaulted compared with 37 of 95 (38.9%) women not receiving a verbal explanation; $p < 0.001$ χ^2 test; OR 0.18 (95% CI 0.08–0.41). Eventually only one (1.5%) in the study group and two (5.3%) of the controls did not attend for colposcopy, and 11 (13.8%) and 24 (25.3%) for follow up cytology.

Despite the leaflet the women in our study still had misunderstandings and anxieties. The verbal explanation helped clarify these. Verbal information can be tailored to the individual, some requested detailed descriptions, others preferred a simpler explanation (as reported previously²). This is not possible with written information. Marteau *et al* found that a brief, simple booklet increased knowledge and reduced anxiety whereas a more complex booklet increased knowledge but did not reduce anxiety.³

The default rates were lower in those receiving the verbal explanation. Lerman *et al* found that women with abnormal cytology who defaulted colposcopy appointments were more worried about cancer with impairment of mood and sleep.⁴ Following the explanation our default rate for colposcopy was within the 15% recommended target,⁵ and follow up cytology was similar to the rates reported in primary care.⁶

There are deficits in this study. The lack of randomisation means the improvement in default rates could be the result of baseline differences rather than the verbal explanation. However, it has shown benefit to the women by improving understanding. The department has also benefited; although extra nursing time has been required, the lower default rates for colposcopy and cytology has reduced the clerical, medical, and secretarial time normally required recalling non-attendees.

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Table 1 The questionnaire results before and after the verbal explanation

Question	Response (n=89)	Before	After	χ^2 test p value
How well do you understand the result you have been given?	Not at all	26	1	<0.0001
	A little	36	13	
	A lot	27	75	
Are you worried about the result of your smear test?	Yes	45	13	<0.0001
	A little	42	60	
	No	2	16	
Will it worry you if we need to do further investigations?	Yes	36	11	<0.0001
	A little	40	46	
	No	13	32	
Are you worried that further investigations will be painful?	Yes	55	28	0.0002
	Don't know	11	14	
	No	23	47	
Do you think that any abnormality found can be treated?	Yes	61	85	<0.0001
	Don't know	25	4	
	No	3	0	
Do you think you have cancer?	Yes	5	1	<0.0001
	Don't know	34	9	
	No	50	79	
Do you think this smear result will affect your ability to have children?	Yes	15	2	<0.0001
	Don't know	34	10	
	No	40	77	
Do you think this result will change your attitude to sex with your partner?	Yes	18	13	0.004
	Don't know	30	14	
	No	41	62	
Do you think this result will affect the way your partner thinks of you?	Yes	8	4	0.36
	Don't know	13	10	
	No	68	75	

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Phone sex: information technology (IT) and sexually transmitted infection in young people

EDITOR.—The recent article on the acceptability of home testing for chlamydia was noted.¹ We would like to extrapolate this concept. Young people could be accessed via an internet clinic. Our experience during the chlamydia pilot study is that this population makes extensive use of technology, in particular mobile phones. The presence of sex on the internet has been widely publicised. We propose that testing for sexually transmitted infection (STI) via the internet is the next logical step.

The chlamydia pilot study was funded by the Department of Health, to investigate the feasibility of screening 16–25 year old women (and some men), for chlamydia, using a urine specimen. Antibiotics for chlamydia are cheap and effective. The cost of complications to the individual is enormous, as is the cost to the NHS—£200 million per year.² Screening reduced the prevalence of infection in Sweden and the United States.³ Computer modelling suggests that screening in this country would be cost effective.⁴

After screening for chlamydia, a means of contacting clients to give results was arranged—for example, letter or phone call. On the Wirral, 2651 patients were screened in the first 4 months—2332 women and 285 men (34, sex not recorded). Sixty eight (2.6%) gave a mobile phone number, half (35) using this as their *only* means of contact. Sixty five were female and two male (one patient not recorded). Thus, women (2.8%) were more likely to use mobile phones than men (0.7%) ($p = 0.03$). The genitourinary medicine (GUM) clinic screened 358 patients. Only 68 (19%) gave an address. The results of a further 469 (17.7%) of the screened population went back to the screening site. These clients could be interested in contact via mobile phone if it was openly offered (data collected from the Public Health Laboratory Service (PHLS) database and analysed on EPI-INFO 6).

According to a survey by NOP Social and Political, confidentiality is important to people in the target age group (unpublished data). Patients consider their mobile phones to be a secure method of communication between themselves and us. The advent of DNA amplification in the detection of STIs has opened up new possibilities.^{5–6} There are 30 000 websites pertaining to chlamydia. An internet clinic would be aimed at mildly symptomatic or asymptomatic patients. The client would access the website and request swabs or urine pots through the post then return them the same way.

If the patients were positive, they would need to attend a GUM clinic or equivalent.

Other infections should not be overlooked. Partner notification is necessary. Contact slips could be supplied but the health adviser's role should not be underestimated.

Security on the internet would have to be addressed. However, the anonymity and convenience of participating from home may increase testing for STIs. This may appeal to younger patients particularly, in view of their experience with IT.

In summary, STI is rising in the younger population. Their utilisation of technology is demonstrated by mobile phone use in the chlamydia pilot study. Health providers should respond using media with which the target population is comfortable. We might just access a whole generation. The future's bright . . .

Conflicts of interest: None.
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Gonorrhoea: an incidence graph of Mersey region data for the 1990s and discussion on the factors behind the changing pattern of incidence

EDITOR.—Gonorrhoea is one of the oldest and a highly infectious sexually transmitted infection. Its prevalence is dynamic and fluctuates over time and is influenced by a number of factors. The incidence of this infection has

changed from a trend of steady decline to a recent increase in many parts of the world.^{1,2} The pattern of incidence is closely related to socioeconomic conditions.^{3,4}

An incidence graph of Mersey Region figures (fig 1) for the 1990s and a discussion on the possible factors associated with the changing pattern is presented here. The incidence from the Mersey Region shows a steady decline until the mid 1990s followed by a recent increase and represents the trend in most areas. In spite of the advances in the diagnostic and therapeutic field, organised health advisory system, easy access walk-in clinics, complete confidentiality, and free treatments; the incidence of gonorrhoea is rising. From the broader analysis of the situation, it is possible to say that most of the factors behind this changing pattern are socio-economic. The factors may include advances in contraceptives, sexual liberalisation, increase in the mobility of population, and the changing economic environment. The cumulative result of all these factors is an increase in casual relationships. Casual sex is made riskier when it is performed unprotected and without much knowledge about the partner and is possibly the main reason behind the poor contact tracing of only 0.5 out of an average of 1.5 per patient.⁵

Some of these factors are part of the wider evolutionary process and are difficult issues to deal with, but preventive measures may be taken against the others. In spite of the recent advances and better understanding of the disease in the recent years, there is still a lack of awareness, in the general population, of the possible mental and physical effects of such infection. The significant fall in the incidence of gonorrhoea seen in the late 1980s, secondary to extensive media coverage of HIV infection, shows how effective such campaigns can be. The present rise in the incidence of gonorrhoea in the past few years shows clearly that our prevention campaigns are not effective.

The young teenagers who make up the pool of supply and the young females who make up the pool of asymptomatic reservoirs of the infection, are the two core groups our campaigns should be targeting.

At present there is no programme in the school curriculum about sexual health and no regular screening programme for sexually active young females.

A programme of long term measures, such as education on sexual health and sexually transmitted infections in schools, and a programme of regular screening for gonorrhoea (and chlamydia) for all sexually active

young females, may be useful and this can be, to start with, combined with the cervical smear screening programme at very little additional cost. Short term programmes, like vigorous media campaigns nationally and poster and leaflet campaigns locally in high risk recreational areas like pubs and clubs, may have an educational value and help reduce the incidence.

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Russian STI

EDITOR.—We would like to inform you that we translated into Russian and published in 1999 in the Russian journal of STI the following reviews from *Sexually Transmitted Infections*: Cohen CR, Brunham RC, Pathogenesis of chlamydia induced pelvic inflammatory disease, *Sex Transm Inf* 1999;75:21-24; Fleming DT, Wasserheit DN, From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection, *Sex Transm Inf* 1999;75:3-17; Hammerschlag MR, Sexually transmitted diseases in sexually abused children: medical and legal implications, *Sex Transm Inf* 1998;74:167-174; Dallabetta GA, Gerbase AC, Holmes KK, Problems, solutions and challenges in syndromic management of sexually transmitted diseases, *Sex Transm Inf* 1998;74 (Suppl 1):S1-11.

We hope for further collaboration. We shall inform you about our future plans.

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Cheilitis in association with indinavir

EDITOR.—There is increasing speculation that indinavir may cause side effects which have been previously associated with high concentrations of retinoids. In the presence of all-trans-retinoic acid (ATRA), indinavir, but not other protease inhibitors (PIs), alters stem cell differentiation in vitro, not seen in the presence of ATRA alone.¹ Alopecia and cheilitis are two side effects associated with both retinoids and the protease inhibitor indinavir (but not with any of the other protease inhibitors). These side effects can be

Figure 1 Total incidence of gonorrhoea in the Mersey Region in 1990-9 (in absolute numbers).

Figure 1 (A) Shows the indinavir related cheilitis and (B) after discontinuation of indinavir.

reversed on changing from indinavir to an alternative PI.² We report a case of cheilitis associated with indinavir which resolved rapidly on changing treatment.

A 35 year old African man developed cheilitis (fig 1A) 5 months after commencing HAART with stavudine, lamivudine, and indinavir. His CD4 lymphocyte count at that time was 238 cells $\times 10^6/l$, with an HIV viral load of 78 copies per ml (Chiron bDNA assay version 3) He had a medical history of granulomatous uveitis of undetermined cause, which developed before HAART. It responded to prolonged treatment with oral prednisolone 40 mg daily and has since remained quiescent. The oral corticosteroids were tailed off and finally discontinued a month before the cheilitis developed. Following the development of cheilitis, further investigations showed: positive IgG antinuclear antibodies with a homogeneous pattern and a titre of 1 in 320; rheumatoid factor positive 1 in 40; anti-Ro and anti Scl-70 both negative; serum angiotensin converting enzyme 75 U/l (normal range 20–95); chest x ray normal; C reactive protein 1 mg/l; erythrocyte sedimentation rate 4 mm in the first hour. Biopsy of the lip showed acanthosis and parakeratosis without associated inflammation. It was initially considered that the cheilitis might be an autoimmune phenomenon, but topical treatment with Eumovate (clobetasone butyrate, GlaxoWellcome) failed to improve the condition, which persisted for 10 months until the indinavir was changed to efavirenz. At the time of changing therapy his CD4 count was 418 cells $\times 10^6/l$, with an HIV viral load below detection. Within a week of changing therapy the cheilitis resolved completely (fig 1B).

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BOOK REVIEW

Chlamydia Intercellular Biology Pathogenesis and Immunity. Ed Richard S Stevens. \$84.95. American Society for Microbiology, 1999. ISBN 1-55581-155-8

This book is a must for anyone interested in how this fascinating organism causes damage. The first part reviews the knowledge on the molecular phylogeny, genomic autobiography, developmental biology, and metabolism of chlamydiae. It shows how far our knowledge of the organism has broadened in the past few years, particularly as gene sequencing has changed our view of chlamydiae. Until this was made available, metabolic studies on chlamydiae were hampered by its intracellular obligate nature, lack of knowledge of the enzyme pathways, and the relatively small genome which suggested very limited metabolic activity. It now becomes apparent that the organism, which we believed to be biologically crippled, has quite sophisticated biosynthetic capabilities. This opens the way to creating a non-cell dependent culture system in the future.

A chapter by Ted Hackstadt on the cell biology shows a whole spectrum of novel interactions with the host cell that contribute to the success of the genus as pathogens. This is followed by an excellent chapter by Julius Schachter on infection and disease epidemiology. He makes the interesting point that given that some individuals lose antibody over time it is possible that almost all humans have met the organism at sometimes in their lives. This may be quite important in understanding some of the longer term consequences of chlamydial infections, where the organism may not be isolated and antibody tests may be negative. These sequelae are covered in subsequent chapters by Michael Ward, Robert Brunum, and Roger Rank. Since all three concentrate on immunological response to chlamydia there is bound to be some overlap, but also some differences and interesting emphasis. For example Ward plays down the current obsession with cross reactions between chlamydia and human heat shock proteins.

A lot of our information, particularly on the immunology, comes from animal studies and their relevance to human pathology remains to be established. In an excellent final chapter Penelope Hitchcock points to the future directions of research. In particular, she laments that little research has been done in men with chlamydia. Certainly the book is rather short on discussion of the male. There is also a need to find a male model for pathogenesis. Non-gonococcal urethritis maybe a suitable, and easily accessible, marker of chlamydial infection in men and deserves more in-depth study. Much more research also needs to be done, particularly, on clinically inapparent infections in the human. This book is a must for all those interested in this fascinating organism. Perhaps while not losing site of the "why" and the "how" of sexual transmission we should also divert some resources into the "how" of its damage.

M SHAHMANESH

NOTICES

International Herpes Alliance and International Herpes Management Forum

The International Herpes Alliance has introduced a website (www.herpesalliance.org) from which can be downloaded patient information leaflets. Its sister organisation the International Herpes Management Forum (website: www.IHMF.org) has launched new guidelines on the management of herpesvirus infections in pregnancy at the 9th International Congress on Infectious Disease (ICID) in Buenos Aires.

Pan-American Health Organization, regional office of the World Health Organization

A catalogue of publications is available online (www.paho.org). The monthly journal of PAHO, the Pan American Journal of Public Health, is also available (subscriptions: pubsvc@tsp.sheridan.com).

MSSVD Clinical Developments Fund

The MSSVD Clinical Developments Fund is asking for applications for funding to support projects that advance the understanding and practice of genitourinary medicine. An amount of £10 000 is available to one or more successful applicant(s). Closing date for application is 25 August 2000. Further details: Dr Keith Radcliffe, Honorary Assistant Secretary MSSVD, Whitall Street Clinic, Whitall Street, Birmingham B4 6DH (tel: 0121 237 5719; fax: 0121 237 5729; email: keith.radcliffe@bscht.wmids.nhs.uk).

3rd Congress of the Baltic Association of Dermatovenereology, 7–9 September 2000, Riga, Latvia

Further details: Professor Andris Y Rubins, Department of Dermatovenereology, Medical Academy of Latvia, K Valdemara Street, 76–75, Riga, LV-1013, Latvia (tel: +(371) 7370395; fax: +(371) 7361615; email: arubins@apollo.lv).

National NCCG Update Meeting, Bromsgrove Stakis Hotel, 23–24 September 2000

Further details: Kathy Taylor (tel: 01384 235207; email: palmtraining@tesco.net).

11th Regional Meeting of International Union against Sexually Transmitted Infections, South East Asian and Western Pacific Branch and 24th National Conference of Indian Association for the Study of Sexually Transmitted Diseases and AIDS, 13–15 October 2000, Chandigarh, India

Further details: Dr Bhushan Kumar, Organising Secretary, 11th Regional Meeting of IUSTI-Asia Pacific (SE Asia and W Pacific Branch), Department of Dermatology, Venereology and Leprosy, PGIMER, Chandigarh - 160 012, India (tel: +91 (0172) 745330; fax: +91 (0172) 744401/745078; email: kumarbhushan@hotmail.com).

New Zealand Venereological Society Conference, Centennial Convention Centre, Palmerston North, New Zealand, 18–20 October 2000

Ka Hikoitia Ka Kororotia Mo Te Tau Rua Mano (Maori) "Walk the Talk 2000." Further details: Sue Peck, Conference Organiser, SP Conference Management, PO Box 4400, Palmerston North, New Zealand (tel: 64 6 357 1466; fax 64 6 357 1426; email suepeck@xtra.co.nz).

Consortium of Thai Training Institutes for STDs and AIDS—10th STDs/AIDS diploma course, Bangkok Hospital, Bangkok (30 Oct–12 Nov) and Prince of Songkla University, Hat Yai, Thailand (13–23 Nov) 30 October–23 November 2000

Further details: Hat Yai Secretariat, Dr Verapol Chandeying, Dept of OB-GYN, Faculty of Medicine, Prince of Songkla University, Hat Yai, Songkla 90110, Thailand (fax: (66-74) 446 361; email: cverapol@ratree.psu.ac.th or Bangkok Secretariat, Dr Thanit Palanuvej, Bangkok Hospital, 189 Sathorn Road, Bangkok 10120, Thailand (fax: (66-2) 286 3013; email: pthanit@email.ksc.net).

Consortium of Thai Training Institutes for STDs and AIDS—International Reunion and Refresher Course on Sexual Health, Lee Garden Plaza Hotel, Hat Yai, Thailand 24–26 November 2000

Further details: Hat Yai Secretariat, Dr Verapol Chandeying, Dept of OB-GYN, Faculty of Medicine, Prince of Songkla University, Hat Yai, Songkla 90110, Thailand (fax: (66-74) 446 361; email: cverapol@ratree.psu.ac.th or Bangkok Secretariat, Dr Thanit Palanuvej, Bangkok Hospital, 189 Sathorn Road, Bangkok 10120, Thailand (fax: (66-2) 286 3013; email: pthanit@email.ksc.net).

Royal Society of Medicine and National Institutes of Health International Conference, RSM London, 7–8 December 2000

The RSM in London, UK, and the NIH in Bethesda, Maryland, US, are organising an international conference to be held at the RSM on "New trends in HIV management and research." Further details: Victoria Boswell, Academic Conference Assistant, Royal Society of Medicine (tel: +44 (0)20 7290 2965; fax: +44 (0)20 7290 2977; email: victoria.boswell@roysocmed.ac.uk).

Call for papers—6th European Forum on Quality Improvement in Health Care, 29–31 March 2001, Bologna, Italy

Further details: BMA/BMJ Conference Unit, BMA House, Tavistock Square, London WC1H 9JP, UK (tel: +44 (0) 20 7383 6409; fax: +44 (0) 20 7383 6869; email: quality@bma.org.uk; website: www.quality.bmjg.com).

CORRECTION

An error occurred in the editorial by R D Maw which was published in the June issue (*STI* 2000;76:153). In the second column, lines 3–6, podophyllin should be replaced by podophyllotoxin in each case.

CURRENT PUBLICATIONS

Selected titles form recent reports published worldwide are arranged in the following sections:

Gonorrhoea
Chlamydia
Candidiasis
Bacterial vaginosis
Trichomoniasis
Pelvic inflammatory disease
Syphilis and other treponematoses
Hepatitis
Herpes
Human papillomavirus infection
Cervical cytology and colposcopy
Other sexually transmitted infections
Public health and social aspects
Microbiology and immunology
Dermatology
Miscellaneous

Gonorrhoea

Gonorrhea, chlamydia and the sexual network—pushing the envelope (Editorial).

JM ZENILMAN. *Sex Transm Dis* 2000;27:224–5

Gonorrhea in male adolescents and young adults in Newark, New Jersey—implications of risk factors and patient preferences for prevention strategies.

KJ MERTZ, L FINELLI, WC LEVINE *et al.* *Sex Transm Dis* 2000;27:201–7

Comparative epidemiology of heterosexual gonococcal and chlamydial networks—implications for transmission patterns.

BP STONER, WL THITTINGTON, JP HUGHES *et al.* *Sex Transm Dis* 2000;27:215–23

Trends of gonorrhea and chlamydial infection during 1985–1996 among active-duty soldiers at a United States Army installation.

AC SENA, WC MILLER, IF HOFFMAN *et al.* *Clin Infect Dis* 2000;30:742–9

Unique gonococcal phenotype associated with asymptomatic infection in men and with erroneous diagnosis of nongonococcal urethritis.

WLH WHITTINGTON, KK HOLMES. *J Infect Dis* 2000;1044–8

Asymptomatic infections have been associated with strains of *Neisseria gonorrhoeae* belonging to certain phenotypes; arginine, hypoxanthine, and uracil requiring (AHU) and proline, citrulline, and uracil requiring (PCU). This study describes an outbreak caused by a new phenotype, citrulline and uracil requiring, which has unique clinical presentation. The authors report an increase in the prevalence of gonococci belonging to the CU auxotype from 1.6% in 1987 to 16.5% in 1997 in King County, Washington, USA. The characteristics of these strains were that they belonged to one of two closely related serovars, IB-1 and IB-3 that differ only by reactivity with a single antibody, they

were all susceptible to penicillin, tetracycline, and erythromycin and were highly susceptible to broad spectrum cephalosporins and fluoroquinolones. The number of cases rose from 57 to 75 per year in the 1980s to 125 and 115 in 1996 and 1997 respectively despite a fall in the total number of cases of gonorrhoea seen. The CU auxotype was also isolated more frequently than other types from healthcare facilities other than GU clinics.

The demographic and behavioural data showed that men infected with the CU auxotype were more often black, heterosexual, younger, less likely to seek care for symptoms and to be co-infected with *Chlamydia trachomatis* than were men infected with other auxotypes. Among heterosexual men, infection with the CU auxotype produced symptoms of urethral discharge or dysuria or signs of moderate or profuse urethral discharge less often than in men infected with other auxotypes. Symptoms of dysuria and discharge were also of longer duration and urethral smears showing intracellular Gram negative diplococci were found in only 67% of patients with the CU auxotype compared with 95% of men with other types.

The characteristics of the CU auxotype may enable these strains to evade detection and hence confer a selective advantage for survival. This is of particular concern when total numbers have fallen and the pressure for screening asymptomatic populations has decreased.

Concurrent gonococcal and chlamydial infection—how best to treat.

AJ ROBINSON, GL RIDGWAY. *Drugs* 2000;59:801–14

***Neisseria gonorrhoeae* MS11 mkC opacity protein expression in vitro and during human volunteer infectivity studies.**

KA SCHMIDT, CD DEAL, M KWAN *et al.* *Sex Transm Dis* 2000;27:278–83

Gonococcal lipo-oligosaccharide is a ligand for the asialoglycoprotein receptor on human sperm.

HA HARVEY, N PORAT, CA CAMPBELL *et al.* *Mol Microbiol* 2000;36:1059–70

Chlamydia

Reexamining the prevalence of *Chlamydia trachomatis* infection among gay men with urethritis—implications for STD policy and HIV prevention activities.

EL CIEMINS, J FLOOD, CK KENT *et al.* *Sex Transm Dis* 2000;27:249–51

Pooling of urine specimens for detection of asymptomatic *Chlamydia trachomatis* infections by PCR in a low-prevalence population: cost-saving strategy for epidemiological studies and screening programs.

SA MOORE, CJLM MEIJER, C MUNK *et al.* *J Clin Microbiol* 2000;38:1679–83

Multiple drug-resistant *Chlamydia trachomatis* associated with clinical treatment failure.

J SOMANI, VB BHULLAR, KA WORKOWSKI *et al.* *J Infect Dis* 2000;181:1421–7

Prevalence of *Chlamydia trachomatis* in urine of male patients with ankylosing spondylitis is not increased.

M VANDERPAARDT, JC VANDENDEREN, AJC VANDENBRULE *et al.* *Ann Rheum Dis* 2000;59:3000–2

The value of *Chlamydia trachomatis* antibody testing as part of routine infertility investigations.

K THOMAS, L BOUGHLIN, PT MANNION, NG HADDAD. *Hum Reprod* 2000;15:1079–82

Low correlation of serology with detection of *Chlamydia trachomatis* by ligase chain reaction and antigen EIA.

HF RABENAU, E KIHLE, M PETERS *et al.* *Infection* 2000;28:97–102

The relationship of inflammation in the Papanicolaou smear to *Chlamydia trachomatis* infection in a high-risk population.

RJ PALER, DR SIMPSON, AM KAYE *et al.* *Contraception* 2000;61:231–4

In situ analysis of the evolution of the primary immune response in murine *Chlamydia trachomatis* genital tract infection.

SG MORRISON, RP MORRISON. *Infect Immun* 2000;68:2870–87

Candidiasis

Practice guidelines for the treatment of candidiasis.

JH REX, TH WALSH, JD SOBEL *et al.* *Clin Infect Dis* 2000;30:662–78

Candida vaginitis—self-reported incidence and associated costs.

B FOXMAN, R BARLOW, H DARCY *et al.* *Sex Transm Dis* 2000;27:230–5

Experimental candidosis. Pathogenesis, prevention, therapy.

E SEGAL. *Mycoses* 2000;42:55–60

Estrogen effects on *Candida albicans*: a potential virulence-regulating mechanism.

XQ ZHANG, M ESSMANN, ET BURT, B LARSEN. *J Infect Dis* 2000;181:1441–6

Investigation of α -glucosidase as a potential virulence factor of *Candida albicans*.

K FEKETEFORGACS, A JENEY, G VARGA, B LENKEY. *J Basic Microb* 2000;40:105–10

Cytokine modulation of specific and nonspecific immunity to *Candida albicans*.

L ROMANI. *Mycoses* 2000;42:45–8

Histidine kinase, two-component signal transduction proteins of *Candida albicans* and the pathogenesis of candidosis.

JA CALERA, R CALDERONE. *Mycoses* 2000;42:49–54

Differential activation of a *Candida albicans* virulence gene family during infection.

P STAIB, M KRETSCHMAR, T NICHTERLEIN *et al.* *Proc Nat Acad Sci USA* 2000;97:6102–7

Bacterial vaginosis

Bacterial vaginosis.

JD SOBEL. *Annu Rev Med* 2000;51:349–56

Urinary tract infections in women with bacterial vaginosis.

OH HARMANLI, GY CHENG, P NYIRJESY *et al.* *Obstet Gynecol* 2000;95:710–2

Characterisation and selection of a *Lactobacillus* species to re-colonise the vagina of women with recurrent bacterial vaginosis.

NW MCLEAN, JJ ROSENSTEIN. *J Med Microbiol* 2000;49:543–52

Induction of human immunodeficiency virus type 1 expression by anaerobes associated with bacterial vaginosis.

RB HASHEMI, M GHASSEMI, S FARO *et al.* *J Infect Dis* 2000;181:1574–80

Trichomoniasis

Consider diagnosis and treatment of trichomoniasis in men (Editorial).

JN KRIEGER. *Sex Transm Dis* 2000;27:241–7

Comparative prevalence of infection with *Trichomonas vaginalis* among men attending a sexually transmitted diseases clinic.

JL JOYNER, JM DOUGLAS, S RAGSDALE *et al.* *Sex Transm Dis* 2000;27:236–40

A meta-analysis of the Papanicolaou smear and wet mount for the diagnosis of vaginal trichomoniasis.

W WIESE, SR PATEL, SC PATEL *et al.* *Am J Med* 2000;108:301–8

A novel cysteine proteinase (CP65) of *Trichomonas vaginalis* involved in cytotoxicity.

ME ALVAREZSANCHEZ, L AVILAGONZALEZ, C BECERRILGARCIA *et al.* *Microbial Pathogen* 2000;28:198–202

Pelvic inflammatory disease

Risk factors for pelvic inflammatory disease in inner-city adolescents.

AL SUSS, P HOMEL, M HAMMERSCHLAG, K BROMBERG. *Sex Transm Dis* 2000;27:289–91

Syphilis and other treponematoses

Potential for community-based screening, treatment and antibiotic prophylaxis for syphilis prevention.

RH KAHN, KE MOSELEY, G JOHNSON, TA FARLEY. *Sex Transm Dis* 2000;27:188–92

Posterior uveitis in patients with positive serology for syphilis.

AV VILLANUEVA, ML SAHOURI, LD ORMEROD *et al.* *Clin Infect Dis* 2000;30:479–85

Treponema pallidum surface immunofluorescence assay for serologic diagnosis of syphilis.

A MARANGONI, V SAMBRI, E STORNI *et al.* *Clin Diag Lab Immunol* 2000;7:417–21

A pilot study evaluating ceftriaxone and penicillin G as treatment agents for neurosyphilis in human immunodeficiency virus-infected individuals.

CM MARRA, P BOUTIN, JC MCARTHUR *et al.* *Clin Infect Dis* 2000;30:540–4

Opsonic potential, protective capacity and sequence conservation of the *Treponema pallidum* subspecies *pallidum* Tp92.

CE CAMERON, SA LUKEHART, C CASTRO *et al.* *J Infect Dis* 2000;181:1401–13

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Natural history of hepatitis C: its impact on clinical management.

AM DIBISCEGLIE. *Hepatology* 2000;31:1014–9

Seroprevalence and risk factors of hepatitis B, hepatitis C and human cytomegalovirus among HIV-infected and high-risk uninfected adolescents—findings of the REACH study.

CA HOLLAND, Y MA, AB MOSCICKI *et al.* *Sex Transm Dis* 2000;27:296–302

Herpes

Herpes simplex virus type 1 as a cause of genital herpes: impact on surveillance and prevention.

WE LAFFERTY, L DOWNEY, C CELUM, A WALD. *J Infect Dis* 2000;181:1454–7

Testing for herpes simplex virus type 2—full steam ahead? (Editorial).

J MILLS. *Sex Transm Dis* 2000;27:270–1

HSV-2 specific serology should be offered routinely to antenatal patients.

ZA BROWN. *Rev Med Virol* 2000;10:141–4

HSV-2 specific serology should not be offered routinely to antenatal patients.

D WILKINSON, S BARTON, F COWAN. *Rev Med Virol* 2000;10:145–54

Seroprevalence of herpes simplex virus type 2 infection among attendees of a sexually transmitted disease clinic in Italy.

M CUSINI, M CUSAN, C PAROLIN *et al.* *Sex Transm Dis* 2000;27:292–5

Herpes simplex virus-type 2 seropositivity in a Danish adult population denying previous episodes of genital herpes.

CS PETERSEN, FG LARSEN, C ZACHARIAE, M HEIDENHEIM. *Acta Dermato-Venerol* 2000;80:158

Seroprevalence of herpes simplex virus type 1 and type 2 in selected German populations—relevance for the incidence of genital herpes.

P WUTZLER, HW DOERR, I FARBER *et al.* *J Med Virol* 2000;61:201–7

Valaciclovir—a review of its long term utility in the management of genital herpes simplex virus and cytomegalovirus infections.

D ORMROD, LJ SCOTT, CM PERRY. *Drugs* 2000;59:839–64

Characterization of an acyclovir-resistant herpes simplex virus type 2 strain isolated from a premature neonate.

RJ ORAM, D MARCELLINO, D STRAUSS *et al.* *J Infect Dis* 2000;181:1458–61

HSV.com: Maneuvering the internet-networks of viral neuropathogenesis and evasion of the host defense.

SL TAN, MG KATZE. *Proc Natl Acad Sci USA* 2000;97:5684–6

Molecular epidemiology of herpes simplex virus type 1 genital infection in association with clinical manifestations.

K UMEKE, T KAWANA. *Arch Virol* 2000;145:505–22

Evaluation of an enzyme-linked viral inducible system for the rapid detection of herpes simplex virus.

MT LAROCO. *Eur J Clin Microbiol Infect Dis* 2000;19:233–5

Premarket evaluation of the POckit HSV-2 type-specific serologic test in culture-documented cases of genital herpes simplex virus type 2.

RL ASHLEY, A WALD, M EAGLETON. *Sex Transm Dis* 2000;27:266–9

Immunisation with phage displaying peptides representing single epitopes of the glycoprotein G can give rise to partial protective immunity to HSV-2.

AM GRABOWSKA, R JENNINGS, P LAING *et al.* *Virol-ogy* 2000;269:47–53

Use of herpes simplex virus type 1 ISCOMS 703 vaccine for prophylactic and therapeutic treatment of primary and recurrent HSV-2 infection in guinea pigs.

JR SIMMS, AW HEATH, R JENNINGS. *J Infect Dis* 2000;181:1240–8

Antibody responses, cytokine levels and protection of mice immunized with HSV-2 antigens formulated into NISV or ISCOM delivery systems.

SA MOHAMED, JM BREWER, J ALEXANDER *et al.* *Vaccine* 2000;18:2083–94

Interferon- γ up-regulates intercellular adhesion molecule-1 and vascular cell adhesion molecule-1 and recruits lymphocytes into the vagina of immune mice challenged with herpes simplex virus-2.

MB PARR, EL PARR. *Immunology* 2000;99:540–5

Evaluation of the inactivation of infectious herpes simplex virus by host-defense peptides.

B YASIN, M PANG, JS TURNER *et al.* *Eur J Clin Microbiol Infect Dis* 2000;19:187–94

Hydrogels containing monocalprin prevent intravaginal and intracutaneous infections with HSV-2 in mice: impact on the search for vaginal microbicides.

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P AKANITAPACHAT, CT LOWDEN, KF BASTOW. *Antiviral Res* 2000;45:123–34

Human papillomavirus infection

Papillomaviruses causing cancer: evasion from host-cell control in early events in carcinogenesis.

H ZURHAUSEN. *J Nat Cancer Inst* 2000;92:690–8

Contemporary theories of cervical carcinogenesis: the virus, the host and the stem cell.

CP CRUM. *Mod Pathol* 2000;13:243–51

International trends in incidence of cervical cancer: II. Squamous-cell carcinoma.

AP VIZCAINO, V MORENO, FX BOSCH *et al.* *Int J Cancer* 2000;86:429–35

A simplified and reliable HPV testing of archival Papanicolaou-stained cervical smears: application to cervical smears from cancer patients starting with cytological normal smears.

MV JACOBS, C ZIELINSKI, CJLM MEIJER *et al.* *J Cancer* 2000;82:1421–6

High prevalence of human papillomavirus type 16 infection among children.

PS RICE, C MANT, J CASON *et al.* *J Med Virol* 2000;61:70–5

Human papillomaviruses and vulvar vestibulitis.

C MORIN, C BOUCHARD, J BRISSON *et al.* *Obstet Gynecol* 2000;95:683–7

Human papillomavirus DNA in penile carcinomas in Argentina: analysis of primary tumors and lymph nodes.

MA PICCONI, AM EIJAN, AL DISTEFANO *et al.* *J Med Virol* 2000;61:65–9

Comparison of human papillomavirus genotypes in archival cervical cancer specimens from Alaska natives, Greenland natives and Danish Caucasians.

AM SEBBELOV, M DAVIDSON, S K KJAER *et al.* *Microbes Infect* 2000;2:121–6

Warty (condylomatous) squamous cell carcinoma of the penis—a report of 11 cases and proposed classification of ‘verruciform’ penile tumors.

AL CUBILLA, EF VELAZQUES, VE REUTER *et al.* *Am J Surg Pathol* 2000;24:505–12

Type of human papillomavirus and expression of p53 in elderly women with cervical cancer.

J SAITO, H HOSHIAL, K NODA. *Gynecol Obstet Invest* 2000;49:190–3

High prevalence of serum antibodies to Ras and type 16 E4 proteins of human papillomavirus in patients with precancerous lesions of the uterine cervix.

A PEDROZASAAVEDRA, A CRUZ, F ESQUIVEL *et al.* *Arch Virol* 2000;145:603–24

Boosting with recombinant vaccinia increases HPV-16 E7-specific T cell precursor frequencies of HPV-16 E7-expressing DNA vaccines.

CH CHEN, TL WANG, CF HUNG *et al.* *Vaccine* 2000;18:2015–22

Human tumor growth is inhibited by a vaccinia virus carrying the E2 gene of bovine papillomavirus.

VV GRAHAM, G SUTTER, MV JOSE *et al.* *Cancer* 2000;88:1650–62

Human papillomavirus type 16 E7 oncoprotein represses transcription of human fibronectin.

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Interleukin-10 increases Th1 cytokine production and cytotoxic potential in human papillomavirus-specific CD8(+) cytotoxic T lymphocytes.

AD SANTIN, PL HERMONAT, A RAVAGGI *et al.* *J Virol* 2000;74:4729–37

Cytokine profile of draining lymph node lymphocytes in mice grafted with syngeneic keratinocytes expressing human papillomavirus type 16 E7 protein.

MC LOPEZ, M STANLEY. *J Gen Virol* 2000;81:1175–82

Cervical cytology and colposcopy

Advances in cervical screening technology.

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Clinical significance of the qualification of atypical squamous cells of undetermined significance: an analysis on the basis of histologic diagnoses.

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Qualitative analysis of value judgments in interpreting cervicovaginal smears using the Bethesda System

L WORKMAN, MR SCHWARTZ, LB MCCULLOUGH. *Arch Pathol Lab Med* 2000; 124:556–62

Papanicolaou smear history and diagnosis of invasive cervical carcinoma among members of a large prepaid health plan.

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Cytologic and histologic diagnosis and significance of controversial squamous lesions of the uterine cervix.

MA DUGGAN. *Mod Pathol* 2000;13:252–60

Photodetection of cervical intraepithelial neoplasia using 5-aminolevulinic acid-induced porphyrin fluorescence.

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Glandular lesions of the uterine cervix,
RJ ZAINO. *Mod Pathol* 2000;13:261–74

The effects of loop excision of the transformation zone on cervical length: implications for pregnancy.

DJ GENTRY, MS BAGISH, K BRADY *et al.* *Am J Obstet Gynecol* 2000;182:516–20

Treatment of vaginal dysplasia: just a simple loop electrosurgical excision procedure?

JL POWELL, DS ADBERY. *Am J Obstet Gynecol* 2000;182:731–2

Needle excision of the transformation zone: a new method for treatment of cervical intraepithelial neoplasia.

AL SADEK. *Am J Obstet Gynecol* 2000;182:866–71

Other sexually transmitted infections

***Mycoplasma genitalium* in males with nongonococcal urethritis—prevalence and clinical efficacy of eradication.**

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Development of a serological test for *Haemophilus ducreyi* for seroprevalence studies.

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JA ALTAWFIQ, KR FORTNEY, BP KATZ *et al.* *J Infect Dis* 2000;181:1049–54

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A prospective study on condom slippage and breakage among female brothel-based sex workers in Singapore.

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Pathogenesis of abnormal vaginal bacterial flora.

GGG DONDEERS, E BOSMANS, A DEKEERSMAECKER *et al.* *Am J Obstet Gynecol* 2000;182:872–8

Wet mount microscopy reflects functional vaginal lactobacillary flora better than gram stain.

GGG DONDEERS, A VEREECKEN, A DEKEERSMAECKER *et al.* *J Clin Pathol* 2000;53:308–13

Induction of mucosal immune responses in the human genital tract.

J MESTECKY, MW RUSSELL. *Fems Immunol Med Microbiol* 2000;27:351–6

Surface characteristics of lactobacilli isolated from human vagina.

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PA CROWLEYNOWICK, JH ELLENBERG, SH VERMUND *et al.* *J Infect Dis* 2000;181:939–45

Evidence that anoreceptive intercourse with ejaculate exposure is associated with rapid CD4 cell loss.

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Recurrent squamous cell carcinoma of the vulva—clinicopathologic determinants identifying low risk patients.

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Anaerobic balanoposthitis: two cases and review of the literature.

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Proliferative epidermal lesions associated with anogenital Paget's disease.

JA BRAINARD, WR HART. *Am J Surg Pathol* 2000;24 543–52

Caruncles at the external urethral meatus.

D AOKI, K NOMATA, S KANDA *et al.* *J Urol* 2000;163:1518

Cutaneous metastatic carcinoma of the penis: suspected metastasis implantation from a bladder tumor.

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Miscellaneous

When is a sexually transmitted disease not an 'STD'?

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Notify or not to notify—STD patients' perspectives of partner notification in Seattle.

PM GORBACH, SO ARAL, C CELUM *et al.* *Sex Transm Dis* 2000;27:193–200

Treatment of sexually transmitted bacterial diseases in pregnant women.

GGG DONDEERS. *Drugs* 2000;59:477–86

Traditional intravaginal practices and the heterosexual transmission of diseases—a review.

JE BROWN, RC BROWN. *Sex Transm Dis* 2000;27:183–7

Extent of regretted sexual intercourse among young teenagers in Scotland: a cross sectional survey.

D WIGHT, M HENDERSON, G RAAB *et al.* *BMJ* 2000;320:1243–4

Sexually transmitted infections in European HIV-infected women: incidence in relation to time from infection.

BHB VANBENTHEM, M PRINS, C LARSEN *et al.* *AIDS* 2000;14:595–604

Prevalence and characteristics of sexual abuse in a national sample of Swedish seventeen-year-old boys and girls.

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Saw palmetto for the treatment of men with lower urinary tract symptoms.

GS GERBER. *J Urol* 2000;163:1408–12

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R VANG, LJ MEDEIROS, EG SILVA *et al.* *Am J Surg Pathol* 2000;24:719–25

Father-son testicular tumors: evidence for genetic anticipation? A case report and review of the literature.

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