LETTERS TO THE EDITOR

Labial adhesions following severe primary genital herpes

EDITOR,—Labial adhesions following genital herpes infection have been described previously.^{1–4} To prevent their development various suggestions such as the use of early aciclovir,¹ paraffin gauze,² and saline bathing³ have been put forward. We believe nursing care is a significant factor in the prevention of this complication. Here we report two cases of severe genital herpes presenting at different sites, almost at the same time, both necessitating admission and developing labial adhesions.

CASE 1

A 25 year old woman was admitted to the medical ward with severe vulval ulceration, generalised skin rash, and difficulty in micturition of 4 days' duration. Clinical examination revealed target lesions, swollen labia, bilaterally enlarged tender inguinal lymphadenopathy with extensive vulval ulcerations. A clinical diagnosis of erythema multiforme secondary to herpes simplex virus (HSV) was made. However, swabs taken at admission for HSV culture were negative. The patient was commenced on oral aciclovir and metronidazole and advised to use topical lignocaine gel; she admitted, however, to being afraid to touch her genitalia. The patient made a slow recovery and was allowed home following 8 days in hospital. At follow up (GUM) 2 weeks later, she presented with a history of her abnormal urinary stream "urine splashing all over the place." Examination of the external genitalia revealed two bands of adhesions between the labia minora. The bands were separated using a knife after infiltration with lignocaine 2% and gauze dressing dispensed to prevent further adhesions. No clinical abnormality was detected on follow up.

Figure 1 (Case 2). Thick band of adhesions between the middle halves of labia minora.

CASE 2

A 27 year old insulin dependent female diabetic was admitted to the gynaecology ward with history of acute onset of vulval soreness, fever, and difficulty in micturition of 3 days' duration. On examination she had a temperature of 38.2°C, oedematous tender vulva, and bilaterally enlarged tender inguinal lymph nodes. A presumptive diagnosis of cellulitis was made. The patient was catheterised and commenced on topical lignocaine gel, subcutaneous morphine, intravenous metronidazole, and cefuroxime, and insulin by sliding scale. Two days later she developed perineal and vulval ulcerations and intravenous aciclovir was added. In view of failure of clinical response the genitourinary department was asked to review the case. Examination revealed perineal and perianal ulcers. A diagnosis of primary HSV was made, intravenous antibiotics were stopped, and oral antivirals were started. The nursing staff were instructed to offer the patient a Sitz bath twice daily in view of extensive discomfort and oedema. Swabs taken confirmed the diagnosis of HSV. The patient made a gradual recovery and she was allowed home after 1 week in hospital. Two weeks later when she presented to the genitourinary medicine clinic, genital examination showed a thick band of adhesions between the middle halves of the labia minora, and new herpetic lesions (fig 1). She was prescribed oral valacyclovir, metronidazole, and lignocaine gel and advised to continue salt and water bathing at home. A follow up appointment was arranged for release of adhesions. Surprisingly, separation of adhesions was not needed.

COMMENT

These two cases illustrate that females with severe genital herpes can be admitted to different hospital departments other than genitourinary medicine, where the nursing staff may not be familiar with the management and complications of this infection. Patients should be encouraged to separate the labial folds; this can be facilitated by the liberal use of local anaesthetic agents with the assistance of the nursing staff. Frequent saline bathing of the genitalia should be encouraged to facilitate the removal of the fibrinous exudate, which is responsible for the formation of these adhesions.

GUM nurses and physicians should play an active part in the education and nursing care of such cases and lead the management especially when admitted to other specialties.

Contributors: EH managed case 1, JD managed case 2, while both authors wrote the manuscript.

E HERIEKA

Department of Genitourinary Medicine, Leicester Royal Infirmary

J DHAR

Department of Genitourinary Medicine, Derbyshire Royal Infirmary

Correspondence to: E Herieka, Department of GUM Leicester Royal Infirmary, Leicester LE1 5WW, UK

- 1 Walzman M, Wade AAH. Labial adhesions after genital herpes infection. *Genitourin Med* 1989;65:187–8.
- 2 Bowman CA, DeSilva PA, Monteiro EF. Labial adhesions after genital herpes infection. *Genitourin Med* 1989;65:401.
- 3 Lacey CJ. Labial adhesions after genital herpes infection. *Genitourin Med* 1989;65:401.
- 4 Haran MV, Crawshaw S, Natin D. Genital adhesions after genital herpes infection. *Genitourin Med* 1989;65:349.

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Respiratory and cutaneous manifestations of disseminated cryptococcosis in AIDS

EDITOR,—A 26 year old, previously fit and well Afro-Caribbean man, presented with a 5 week history of a "flu-like" illness. Initially treated with antibiotics, the patient deteriorated, developing a cough, haemoptysis, progressive breathlessness, intermittent blurring of vision, and a rash. Investigations indicated he was HIV positive.

On examination, though orientated, he looked unwell and was febrile. He had an extensive papulonodular rash on his face, trunk, and limbs. Many of these lesions were centrally umbilicated with areas of associated haemorrhage (fig 1). Respiratory examination revealed decreased air entry in the right chest and coarse inspiratory bi-basal crackles. Funduscopy demonstrated retinal pallor, congested optic discs, and bilateral soft exudates associated with haemorrhages. He had no focal neurological signs.

Full blood count, urea and electrolytes, and clotting screen were normal. Arterial blood gases on 35% oxygen revealed a pH of 7.44, Pao₂ 9.4 kPa, Paco₂ 2.7 kPa, base excess –8.2. Chest radiograph demonstrated bilateral infiltrates with a right sided pleural effusion.

The patient had been treated for a presumed diagnosis of severe community acquired pneumonia and/or *Pneumocystis carinii* pneumonia plus *Molluscum contagiosum* of the skin. In view of the patient's clinical findings, additional therapy was commenced with anticytomegalovirus (CMV) and anticytotoxic agents.

Urgent blood and pleural fluid cryptococcal reactive antigen testing (CRAG) were strongly positive at a titre of >1:2048. Blood CMV PCR was negative. The patient could not tolerate a lumbar puncture. Despite initial improvement, he developed progressive respiratory failure and died. The post mortem revealed disseminated cryptococcal disease with involvement of brain, skin, lung, heart, liver, spleen, kidneys, pancreas, thyroid, bowel, adrenal glands, and testes.

Figure 1 Cryptococcal skin lesions associated with disseminated disease.

Disseminated cryptococcal infection has a >80% mortality when associated with respiratory failure.¹ Cutaneous lesions occur in 5–10% of cases.² These include subcutaneous nodules, ulcers, and cellulitis. These may mimic pyoderma gangrenosum, Kaposi's sarcoma, and *Molluscum contagiosum*. Clinically, cryptococcal disease may be distinguished from *Molluscum contagiosum* by a more acute onset of numerous papules, which often have a tiny central haemorrhagic crust.³

Our patient was unwell and had skin lesions that were too extensive for simple *Molluscum contagiosum*. While *Pneumocystis carinii* remains the commonest cause of severe respiratory disease in HIV infected individuals not on chemoprophylaxis, pleural effusions are rare in this condition. CMV would be unlikely to produce such acute systemic illness by itself. Hence, cryptococcal disease was a reasonable working diagnosis that required urgent treatment.⁴ A recent report has highlighted diagnostic delay as a major factor contributing to its high associated mortality.¹ The CRAG test provides a rapid method of confirming the diagnosis of cryptococcosis.⁵ It will be positive in blood in infected individuals in up to 95% of cases. The result can then be verified on culture of suitable body fluids.

We recommend early consideration of disseminated cryptococcosis in HIV positive patients with respiratory features suggestive of pneumonia or pleural effusion and atypical skin lesions. The use of rapid diagnostic tests may help to improve the poor outcome in this patient population.

FAISAL ISLAM
SIOBHAN GILLESPIE
FELIX CHUA

Royal Free Hospital, Department of HIV/Respiratory
Medicine, Royal Free NHS Trust, Pond Street,
London NW3 2QG, UK

MICHAEL JARMULOWICZ
Department of Histopathology

MARGARET JOHNSON
MARC LIPMAN

Royal Free Hospital, Department of HIV/Respiratory
Medicine

Correspondence to: Dr M C I Lipman
marc.lipman@rnfh.nthames.nhs.uk

- 1 Visnegarwala F, Graviss EA, Lacke CE, *et al.* Acute respiratory failure associated with cryptococcosis in patients with AIDS. *Clin Infect Dis* 1998;27:1231–7.
- 2 Chuck SL, Sande MA. Infections with *Cryptococcus neoformans* in the acquired immunodeficiency syndrome. *N Engl J Med* 1989;321:794–9.
- 3 Sandler B, Potter TS, Hashimoto K. Cutaneous *Pneumocystis carinii* and *Cryptococcus neoformans* in AIDS. *Br J Dermatol* 1996;134:159–63.
- 4 Meyohas MC, Roux P, Bollens D, *et al.* Pulmonary cryptococcosis: localised and disseminated infections in 27 patients with AIDS. *Clin Infect Dis* 1995;21:628–33.
- 5 Tanner DC, Weinstein MP, Fedorciw B, *et al.* Comparison of commercial kits for detection of cryptococcal antigen. *J Clin Microbiol* 1994;32:1680–4.

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Recurrent eczema herpeticum: an underrecognised condition

EDITOR,—We present a case of eczema herpeticum to highlight that herpes simplex can cause generalised infection in atopic individuals and should be considered in the differential diagnosis.

CASE REPORT

A 19 year old man presented with 2 day history of extensive painful pustular eruptions of the hands, forearms, and chest. He also felt unwell and had fever. Fingers were stiff and could not be fully extended. He was seen in the local accident and emergency department and prescribed flucloxacillin. On direct questioning he admitted that his illness started with painful penile ulcers followed 2 days later by generalised crops of blisters, which then became infected. Ten days before this he had unprotected sexual intercourse with a casual female friend in Ibiza. He had extensive atopic eczema during childhood, which is well controlled now but has been getting hay fever for the past few years.

Examination revealed symmetrical pustular eruptions on the hands, wrist, forearms, lower legs and chest, and a few vesicular eruptions on the hands typical of herpes. He also had multiple superficial penile ulcers. Axillary and inguinal lymph nodes were enlarged. There was also evidence of generalised eczema.

Herpes simplex was isolated from the penile ulcers. Screening for other STIs and HIV was negative. He was treated with aciclovir 200 mg five times a day for 5 days with very good response. Two months later he presented to us with a similar episode that required treatment with aciclovir. Since then he has been seen on two occasions with recurrence in the past year, but the attacks were more localised to his hands and external genitalia (fig 1).

Eczema herpeticum is classically a disseminated herpes simplex infection of the skin occurring in patients with pre-existing active dermatitis. The severity varies from mild transient disease to a fulminating fatal disorder involving the visceral organs.^{1,2} The severity appears to be unrelated to the extent of eczematous lesions. Active dermatitis is not necessary for the development of recurrent eczema herpeticum.

Atopic dermatitis typically begins in early infancy, and individuals with this disease frequently develop other atopic manifestations later in life such as hay fever, allergic rhinitis, and bronchial asthma.³ Eczema herpeticum has also been associated with seborrhoeic dermatitis, neurodermatitis, Darier's disease, pemphigus, mycosis fungoides, Wiskott-Aldrich disease, congenital ichthyosiform erythroderma,^{4,5} and second degree burns.⁶

The presentation in our patient is fairly typical, lesions appearing in crops initially as tiny vesicles passing through pustular and crusted phases associated with systemic symptoms. This condition is often misdiagnosed because the lesions are usually scratched and blistering is lost leaving raw punched out areas often with secondary infection. Diagnosis is based on patient history of atopic disease, presence of vesicular

Figure 1 Herpetic lesions of the hands and penis.

lesion, the striking tendency for the lesions to return to the same areas of the skin, and a positive result of viral culture for herpes simplex.

Eczema herpeticum is now being seen with increasing frequency in adults³ and herpes simplex infection should be considered in the differential diagnosis of vesicular skin lesions occurring in atopic patients.

V HARINDRA
MAURICE C PAFFETT

Department of Genitourinary Medicine, St Mary's
Hospital, Milton Road, Portsmouth PO3 6AD, UK

Correspondence to: Dr Harindra

- 1 Margolis TP, Ostler HB. Treatment of ocular disease in eczema herpeticum. *Am J Ophthalmol* 1990;110:274–9.
- 2 Parker RK, Guin JD. Hand eczema herpeticum. *Cutis* 1993;52:227–8.
- 3 Kaplan AP, Buckley RH, Mathews KP. Allergic skin disorders. *JAMA* 1987;258:2900.
- 4 Niimura M, Nishikawa T. Treatment of eczema herpeticum with oral acyclovir. *Am J Med* 1988;85(suppl 2A):49–52.
- 5 Bork K, Brauninger W. Increasing incidence of eczema herpeticum: analysis of seventy five cases. *J Am Acad Dermatol* 1988;19:1024–9.
- 6 Foley FD, Greenwald MKA, Nash MG, *et al.* Herpes virus infection in burned patients. *N Engl J Med* 1970;282:652–6.

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Pooling urine samples for PCR screening of *C trachomatis* urogenital infection in women

EDITOR,—Selective or universal screening for *Chlamydia trachomatis* infections has been suggested by the World Health Organization as a primary prevention strategy.¹

The improved sensitivity of the nucleic acid amplification assays for the detection of *C trachomatis* allows the use of urine samples, suitable for screening programmes. However, these commercial assays are expensive, which make them disadvantageous for this purpose.

Therefore, some authors have recently evaluated the accuracy and cost saving of different urine pooling strategies using polymerase chain reaction (PCR) and ligase chain reaction (LCR) tests for the screening for genital *C trachomatis* infections, reporting very encouraging results.^{2–5} As the pooling strategies need individual retesting of each component of a positive pool, in order to identify the positive samples the cost saving inherent to these strategies are prevalence and pool size dependent. For this reason, pooling may be particularly suitable when applied to low prevalence populations. On the other hand, a high number of urine samples per pool may yield a decreased sensitivity because of the dilution effect associated with pooling. Peeling *et al* and Kacena *et al* have put forward a mathematical formula to estimate the number of pools that are likely to be positive given a selected pool size and population disease prevalence.^{2,3} Thus, it is possible to estimate the reduction on the number of tests required for a pooling strategy compared with individual testing.

The objective of this study was to evaluate a pooling urine samples strategy for screening urogenital chlamydial infection by PCR testing.

In all, 330 processed first catch urine samples (FCU) from women attending general practice clinics in Lisbon (from August 1999 to February 2000) were pooled by five into 66 pools. Pools and individual specimens were simultaneously tested using the Amplicor PCR test, according to the manufacturer's

Table 1 Distribution of positive samples

	"+" Pools (12)	Equivocal pools (4)*	"-" Pools (50)
"+" Samples (17)	13	4	0

*Confirmed as positive pools.

instructions. Equivocal results analysis (>0.2 OD, <0.8 OD) was resolved by reprocessing original samples and by retesting both pooled and individual specimens by Amplicor PCR assay.

The results are summarised in table 1. The calculated prevalence was 5.2% (17/329). The dilution effect associated with the pooling strategy did not have any effect on either the sensitivity or specificity of the Amplicor PCR test (both 100%) and also solved the problem of PCR inhibitory substances in urine specimens (0% compared with 3.6% of individual testing). One FCU specimen was repeatedly inhibited and was excluded.

The choice for a 5× size pool model was based on the highest potential cost saving for the estimated prevalence of the studied population, according to Peeling *et al.* and Kacena *et al.*^{2,3} According to the number of tests required using pooling and individual testing (166 and 346, respectively) the cost saving was 52% compared with the 56% obtained using the mathematical formula. The main reason for this minor difference is that the formula does not take into account the inhibited and equivocal results requiring further sample testing.

Despite the low number of studies concerning urine pooling strategies, the results obtained so far suggest that pooling FCU samples can be useful for epidemiological studies and for screening programmes.

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J P GOMES
M A FERREIRA
Bacteriology Department,
National Institute of Health,
Lisbon, Portugal

A BRITO DE SÁ
Institute of Preventive Medicine,
Lisbon Medical School,
Lisbon, Portugal

M A CATRY
Bacteriology Department,
National Institute of Health,
Lisbon, Portugal

Correspondence to: João Paulo Gomes, Centro de Bacteriologia, Instituto Nacional de Saúde, Av Padre Cruz, 1649-016, Lisboa, Portugal

- 1 WHO-UNAIDS. Sexually transmitted diseases: policies and principles for prevention and care. Geneva: WHO, 1997.
- 2 Peeling RW, Teye B, Jessamine P, *et al.* Pooling urine specimens for PCR testing: a cost saving strategy for Chlamydia trachomatis control programmes. *Sex Transm Inf* 1998;74:66-70.
- 3 Kacena KA, Quinn SB, Howell MR, *et al.* Pooling urine samples for ligase chain reaction screening for genital Chlamydia trachomatis infection in asymptomatic women. *J Clin Microbiol* 1998;36:481-5.
- 4 Krepel J, Patel J, Sproston A, *et al.* The impact on accuracy and cost of ligase chain reaction testing by pooling urine specimens for the diagnosis of Chlamydia trachomatis infections. *Sex Transm Dis* 1999;26:504-7.
- 5 Morre SA, Meijer CJ, Munk C, *et al.* 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. *J Clin Microbiol* 2000;38:1679-80.

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Emergence of high level ciprofloxacin resistant *Neisseria gonorrhoeae* strain in Buenos Aires, Argentina

EDITOR,—The surveillance programme of *Neisseria gonorrhoeae* (NG) antimicrobial susceptibility patterns was implemented in 1980 in the National Reference Centre for STI (NRC).

Twenty nine peripheral STI laboratories belonging to the National Network of Argentina, distributed throughout the country, routinely send their isolates to the NRC for typing, susceptibility testing, and plasmid characterisation.

The NRC was incorporated into the WHO Gonococcal Antimicrobial Susceptibility Programme (GASP) for the Americas and the Caribbean in 1993 and since then the methodology has been standardised.

From January 1993 to June 2000, the NRC determined the MICs of 1194 NG strains by the agar dilution method with the media, conditions, and controls as recommended by the NCCLS.¹ Ciprofloxacin range, MIC₉₀, and MIC₅₀ were 0.002–16, 0.004, and 0.016 µg/ml, respectively.

Only one NG strain, detected in 1996, showed a decrease susceptibility to ciprofloxacin. The isolate was submitted by a public hospital from Buenos Aires city. The strain was β lactamase negative by nitrocefin discs and the MICs were penicillin 0.5 µg/ml, tetracycline 4 µg/ml, ciprofloxacin 0.125 µg/ml, spectinomycin 32 µg/ml, ceftriaxone 0.004 µg/ml, and azithromycin 0.25 µg/ml. The auxotype/serogroup class² was proline requiring/WII-III.

In May 2000 the first NG strain with high level quinolone resistance (QRNG) was isolated. This strain was isolated in a private medical centre in Buenos Aires city and was submitted to the NRC; no inhibition zone was observed with a 5 µg ciprofloxacin disc.

CASE REPORT

The patient was a heterosexual man, aged 34 years, married, not a drug user, and he hadn't travelled abroad during the past year. However, he admitted to having had sexual intercourse with a commercial sex worker, 4 days before the onset of the symptoms. He presented with a purulent acute urethritis with dysuria and was treated with a parenteral dose of ceftriaxone 500 mg and a week's course of doxycycline. The patient became asymptomatic 36 hours after the start of the treatment. Serological tests for VDRL, HIV, and hepatitis B and C were negative.

The strain was β lactamase negative and exhibited high level ciprofloxacin resistance (MIC 16 µg/ml) and low level tetracycline resistance (MIC 4 µg/ml) and was susceptible to the other antibiotics assayed. The MICs were penicillin 1 µg/ml, spectinomycin 32 µg/ml, ceftriaxone 0.008 µg/ml, and azithromycin 0.25 µg/ml. Phenotyping demonstrated a proline requiring auxotype and a WII/III serotype.

Both NG strains mentioned above displayed the same phenotypic characteristics: MICs (except for ciprofloxacin), auxotype, and serogroup.

Pulse field gel electrophoresis (PFGE) was performed with *NheI* and *SpeI*.³ There was no relation between the PFGE patterns of the

two strains and neither showed genomic similarities to four other ciprofloxacin susceptible NG isolates belonging to the auxotype/serogroup class Pro/WII-III isolated in Buenos Aires at the same time.

The epidemiological data and laboratory characterisation of this high level quinolone resistant strain suggest it might have a foreign origin.

According to the literature reviewed no QRNG strain with high level quinolone resistance was reported in Latin-American countries. We report here what we believe to be the first isolation of a strain with high level resistance to ciprofloxacin in Argentina.

Owing to the large scale use of quinolones in our country, where antibiotic use is difficult to control, a substantial increase of QRNG might be expected in the near future. If dissemination occurs, current first line therapy, a single 500 mg dose of ciprofloxacin, should be reviewed.⁴

S FIORITO
P GALARZA
I PAGANO
C OVIEDO

National Reference Center for STI, National Institute of Infectious Diseases, Buenos Aires, Argentina

A LANZA
J SMAYEVSKY

Center for Medical Investigation (CEMIC), Buenos Aires, Argentina

G WELTMAN
Biocencia Laboratories, Buenos Aires, Argentina

L BUSCEMI
Dr F J Muñoz Hospital, Buenos Aires, Argentina

E SANJUÁN
San Luis Medical Center, Buenos Aires, Argentina

Correspondence to: Susana Fiorito, MD, National Reference Center for STI, National Institute of Infectious Diseases, Av Velez Sarsfield 563 (CP 1281) Buenos Aires, Argentina

smfiorito@yahoo.com.ar

- 1 National Committee for Clinical Laboratory Standards 2000. Methods for dilution antimicrobial susceptibility tests for bacteria that grow aerobically. Approved standard. 5th ed. NCCLS document M7-A5;20(2).
- 2 Dillon JR. Laboratory methods for *Neisseria gonorrhoeae*. Ottawa, Ontario, Canada: National Health and Welfare, 1993.
- 3 Tenover FC, Arbeit RD, Goering RV, *et al.* Interpreting chromosomal DNA restriction patterns produced by pulse-field gel electrophoresis: criteria for bacterial strain typing. *J Clin Microbiol* 1995;33:2233-9.
- 4 Center for Disease Control. Fluoroquinolone resistance in *Neisseria gonorrhoeae*, Hawaii, 1999, and decreased susceptibility to azithromycin in *N. gonorrhoeae*, Missouri, 1999. *MMWR* 2000;49:833-7.

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Dorsal perforation of prepuce due to locally erosive condylomata acuminata

EDITOR,—We recently reported five patients with sexually/non-sexually transmitted ulcerative diseases complicated by perforation on the dorsal surface of the prepuce.¹ We could find reports of only three similar cases in the indexed literature. During screening of our STD clinic files we found record of another patient with dorsal perforation of the prepuce; however, it was not due to genital ulcer disease, but to condylomata acuminata. This patient, a 22 year old man had unprotected sexual intercourse with a commercial sex worker about 6 months before reporting to our STD clinic in January 1994. About 1 month after sexual contact, he

Figure 1 Dorsal perforation of the prepuce through which multiple papulonodular, warty lesions are visible.

developed small papular lesions on the glans penis. Lesions enlarged rapidly and started eroding the undersurface of the prepuce. Finally, 3 months later, the prepuce was perforated. Examination revealed a large, circular defect on the dorsal aspect of the prepuce through which multiple papulonodular, warty lesions were visible (fig 1). Warty lesions were also visible all around the preputial opening. On retraction of the prepuce (which was difficult), the whole glans penis, corona, and frenulum and undersurface of the prepuce were studded with multiple warts varying in size from 2 mm to 1.5 cm. The surface of the lesions was verrucous. Histopathological examination of one of the warty lesions showed features consistent with condyloma acuminatum. Serology for HIV and syphilis were negative.

In our earlier report all patients with dorsal preputial perforation had ulcerative diseases involving genitalia. Maite and Hay² earlier reported a patient with genital warts treated with topical podophyllin, who presented later with perforation of the dorsal surface of prepuce. They considered it as delayed podophyllin damage. Our patient had not been treated before with podophyllin. The identical presentation in our and the reported patient suggests that warts themselves and not podophyllin are responsible for perforation. Condylomas particularly in immunocompromised individuals may attain a very large size and rarely become locally invasive and destructive.³ In our patient, however, condylomas were not very large and there was no evidence of immunosuppression.

Our patient had condylomas all over the glans, but perforation took place only on the dorsum of the prepuce, confirming that this site is more susceptible to this complication.

Incidentally, two more patients with perforation on the dorsal surface of the prepuce as a complication of chancroid and genital herpes have been depicted in *A colour atlas of AIDS in the tropics*.⁴ Both patients were HIV seropositive. This suggests that this complication is not uncommon (though underreported), more so in tropics. HIV infection by altering the course and severity of genital lesions of sexually transmitted diseases probably makes this complication more frequent. Out of the 10 patients reported/published, half were HIV seropositive.

SOMESH GUPTA
BHUSHAN KUMAR

Department of Dermatology, Venereology and Leprology, Postgraduate Institute of medical Education and Research, Chandigarh 160 012, India

Correspondence to: Dr Bhushan Kumar
kumarbhushan@hotmail.com

1 Gupta S, Kumar B. Dorsal perforation of prepuce: a common end point of severe ulcerative

genital diseases? *Sex Transm Inf* 2000;76:210–12.

2 Maite H, Hay KR. Mystery of the holey prepuce—delayed podophyllin damage? *Genitourin Med* 1989;65:201–7.

3 Kautsky LA, Kiviat NB. Genital human papillomaviruses. In: Holmes KK, Sparling PF, Mardh PA, et al, eds. *Sexually transmitted infections*. New York: McGraw-Hill, 1999:347–59.

4 Ansary MA, Hira SK, Baytey AC, et al. Sexually transmitted diseases (STDs). In: *A colour atlas of AIDS in the tropics*. London: Wolfe Publishing House, 1989:18–28.

Urine proves a poor specimen for culture of *Trichomonas vaginalis* in women

EDITOR,—*Trichomonas vaginalis* infection occurs worldwide with an incidence of over 200 million infections per year.¹ Clinical disease in women ranges from asymptomatic to severe vaginitis, and has been associated with preterm delivery² and an increased rate of HIV-1 transmission.³

The magnitude of *T vaginalis* associated morbidity, including risk of HIV-1 transmission, makes simple accurate diagnosis important especially in at-risk populations. Microscopic examination of a wet mount vaginal specimen is easy to perform but only identifies 40–60% of infections in comparison to culture. The In-pouch culture system (Biomed Inc, San Jose, CA, USA) is reported to be equally sensitive yet more practical than traditional culture methods.⁵ If proved sensitive, culturing of urine from female patients for *T vaginalis* might prove useful in population based screening programmes, field investigations, or individual circumstances when a patient might not want a genital examination. Therefore, we set out to determine the sensitivity of culturing urine from women in comparison with a self collected vaginal swab for identification of *T vaginalis*.

We recruited subjects from a randomised community study that investigated the prevalence of sexually transmitted infections in women with and without access to female condoms.⁶ In this particular substudy we obtained specimens from participants in two study sites. Participants were instructed by one of the study nurses how to obtain a self collected vaginal swab and at the same time collect urine. Women were asked not to clean the genital area before providing both specimens. Immediately after collection the vaginal swab was inoculated into the In-pouch and urine was spun at 2000 g for 10 minutes. After the supernatant was discarded, the sediment was agitated and pipetted directly into the In-pouch. Specimens were shipped at room temperature to the University of Nairobi and incubated at 37°C for up to 5 days according to manufacturer's instructions. Daily microscopic examination was performed for identification of *T vaginalis*. Random specimen coding ensured that laboratory staff remained blind to specimen source and pairing.

We recruited 675 women for this substudy. *T vaginalis* was detected by culture in 121 (17.9%) women per self collected swab and 23 (3.4%) women per centrifuged urine. In comparison with culture of self collected swab, culture of centrifuged urine yielded a sensitivity of only 17% and a specificity of 99.6% (table 1). We originally intended to recruit over 2000 women into the study, but discontinued recruitment when preliminary results clearly demonstrated the inadequacy of urine for culturing *T vaginalis* in women.

In this large scale community study we found culture of centrifuged urine very

Table 1 Comparison of culture for *T vaginalis* from centrifuged urine and self collected vaginal swab in 675 women

	<i>T vaginalis</i> urine culture		
	Negative	Positive	Total
<i>T vaginalis</i> self administered vaginal swab			
Negative	552	2	554
Positive	100	21	121
Total	652	23	675

Kappa = 0.256.

insensitive for identification of trichomonads in women. Since only 5–10 organisms in a sample are necessary for a positive culture,⁵ these findings were unexpected. We cannot fully explain why culture of urine for *T vaginalis* in women proved so poor. Because of contamination of the external genitalia with vaginal fluid, a first void urine specimen might have proved a better sample.

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Contributors: OAM helped design and oversee the study, assisted with analysis of the data, and drafted the manuscript; CRC designed the study protocol, analysed the data, and supervised preparation of the manuscript; DK assisted with the design and supervision of the study, and assisted with manuscript preparation; MK assisted with the design and supervision of the study, and assisted with manuscript preparation; JO performed the culture of *T vaginalis*, and assisted with manuscript preparation; JJB oversaw the laboratory aspects of the study, was co-principal investigator of the parent study, and assisted with manuscript preparation; MW was a co-investigator of the parent study and assisted in manuscript preparation; PJF was the principal investigator of the parent study and assisted with manuscript preparation.

OMARI A MOHAMED

Department of Medical Microbiology,
University of Nairobi, Nairobi, Kenya and
Family Health International, Nairobi, Kenya

CRAIG R COHEN

Department of Medical Microbiology,
University of Nairobi, Nairobi, Kenya and
Department of Obstetrics and Gynecology,
University of Washington, Seattle, Washington, USA

DORCAS KUNGU

Department of Medical Microbiology,
University of Nairobi, Nairobi, Kenya

MAUREN A KUYOH

Family Health International, Nairobi, Kenya

JAMES A ONYANGO

JOB J BWAYO
Department of Medical Microbiology,
University of Nairobi, Nairobi, Kenya

MIKE WELSH

Family Health International, Nairobi, Kenya

PAUL J FELDBLUM

Research Triangle Park, North Carolina, USA

Correspondence to: Craig R Cohen, MD, MPH,
Department of Obstetrics and Gynecology, University of Washington, Box 356460, Seattle, WA 98195, USA

crcohen@u.washington.edu

1 Krieger JN, Alderete JF. *Trichomonas vaginalis* and trichomoniasis. In: Holmes KK, Sparling PF, Mardh PA, Lemon SM, Stamm WE, Piot P, Wasserheit JN, eds. *Sexually transmitted diseases*. New York: McGraw Hill, 1999:587–604.

2 Minkof H, Gruenebaum AN, Schwartz RH, et al. Risk factors for prematurity and premature rupture of membranes: a prospective study of the vaginal flora in pregnancy. *Am J Obstet Gynecol* 1984;150:965–72.

3 Laga MA, Manoka A, Kivuvu M, et al. Non-ulcerative sexually transmitted diseases as

risk factors for HIV-1 transmission in women: result from a cohort study. *AIDS* 1993;7:95-102.

- 4 Krieger JN, Tam MR, Stevens CE, *et al.* Diagnosis of trichomoniasis: comparison of conventional wet mount examination with cytologic studies, cultures and monoclonal staining of direct specimens. *JAMA* 1988;259:1223-7.
- 5 Draper D, Parker R, Patterson E, *et al.* Detection of *Trichomonas vaginalis* in pregnant women with the In-pouch *Trichomonas vaginalis* culture system. *J Clin Microbiol* 1993;31:1016-8.
- 6 Feldblum PJ, Bwayo JJ, Kuyoh M, *et al.* Design of a community-based intervention trial to evaluate female condom introduction and STDs. *Ann Epidemiol* 2000;10:339-46.

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Guidelines for serological testing for syphilis

EDITOR.—In our area the high HIV prevalence has made the interpretation of syphilis tests particularly problematic. Coinfected patients do appear to reactivate their treponemal infection or possibly reinfection with a different "strain" in the presence of profound immunosuppression. As with some other agents IgM can persist for several years with peaks and troughs. Non-treponemal tests are uniformly negative while TPHA levels can fluctuate widely. It is perhaps unfortunate that reference laboratories may have developed their algorithms in the face of conventional syphilis diagnosis—these do little to help with HIV coinfecting patients.

DENIS J McELBOROUGH
Public Health Laboratory, Royal Sussex County
Hospital, Eastern Road, Brighton, UK

DMCELBO@aol.com

- 1 Young H. Guidelines for serological testing for syphilis. *Sex Transm Inf* 2000;76:403-5.

Sexually transmitted infections and risk behaviours in women who have sex with women

EDITOR.—While it is comforting that some research is finally being carried out in depth on the risk of STIs among women who have sex with women (WSW),¹ any conclusions drawn from this study for WSW in general need to be handled with a great deal of caution when one looks at the make up of the subjects and controls.

For example, over twice as many of the WSW as the control group were current sex workers; 38% of the WSW had had a previous termination of pregnancy; nearly six times as many of the WSW had a history of injecting drug use.

The researchers themselves say their "clinic population . . . may not be representative of the WSW in the general community." This is an understatement—and any reporting of this study must make very clear statements about the dangers of inappropriate conclusions about STIs among women who have sex with women generally.

L SEMPLE
Lothian Health Board, Scotland

linda.semple@lhb.scot.nhs.uk

- 1 Fethers K, Marks C, Mindel A, *et al.* Sexually transmitted infections and risk behaviours in women who have sex with women. *Sex Transm Inf* 2000;76:345-9.

BOOK REVIEWS

Lower Genital Tract Precancer. 2nd ed. By Albert Singer, John M Monaghan. £135.00; Pp 323. Oxford: Blackwell Science, 2000. ISBN 0632047690.

It is 6 years since the first edition of this book and the expansion in knowledge about lower genital tract precancer is reflected in the addition of an assistant and a contributing author, as well as an increase in the number of pages (from 254 in the first edition to 323 in the present one).

The extra input and space has been used to maximal effect with the book losing none of its attractions of appearance, content, and even texture by its use of high quality paper.

The addition of a chapter on the role of human papilloma virus in lower genital tract neoplasia makes the book more rounded. This chapter is comprehensive as well as excellently presented and very up to date. I appreciated the section on the role of oncogenic HPV detection in the prevention of lower genital tract precancer, although this naturally concerned CIN rather than VIN or VaIN.

I would have preferred chapter 5 (Cytology and screening for cervical precancer) to follow chapter 2 (HPV in the pathogenesis of lower genital tract neoplasia) and then the more practical aspects of colposcopy itself would not be interrupted. This is a small criticism of an otherwise comprehensive and logical content.

The chapter on the management of cervical precancer is a delight to read and see, with the section devoted to HIV positive women reflecting most shades of reliable opinion in this developing field. HIV is again included in the chapter on VIN.

GU colposcopists will be particularly interested in the final chapters on infective conditions causing confusion in diagnosis of lower genital tract precancer. It is easy to quibble with some of the statements of management of the infections noted (cervical warts do not even merit a mention of treatment) but that is not the remit of the book.

The illustrations are gorgeous throughout and the line drawings are used to very good effect. The overassiduous book critic might mention the data left on some colposcopic photographs, the venerable laser machine showed on page 171 and whether the speculum is correctly placed on page 36, but not me.

This is a "must buy." It's a big book (in size, content, and price) which should form the nucleus of the colposcopist's library.

D A HICKS

Royal Hallamshire Hospital, Department of
Genitourinary Medicine, Glossop Road,
Sheffield S10 2JF

Congenital and perinatal infections prevention, diagnosis and treatment. Ed by Marie-Louise Newell, James McIntyre. £37.95; Pp 342. Cambridge: Cambridge University Press, 2000. ISBN 0 521 78979 6.

I liked this book. An alternative title could be "An evidence based review of prevention, diagnosis, and treatment of congenital and perinatal infection." The editors, both recog-

nised experts in perinatal infection, persuaded an international panel to provide up to date reviews of particular perinatal infections with key references up to 1999/2000. Despite clearly a short production time an inevitable weakness is that new data have become available after going to press. To keep costs down there are few illustrations and a lot of text. However, tables are widely used and the text is well broken up. One third of the book is devoted to references, so all the text is strongly evidence based, and statements are not based on authors' opinion but on published literature.

There is an excellent introduction on the interaction between pregnancy, immunity, and infection and a thorough discussion on maternal infections and their consequences. This section ends with a review of the pitfalls and benefits of screening for antenatal infections including an excellent summary of the potential biases involved in setting up and evaluating screening programmes.

The second section is a traditional whizz through the standard common infections in pregnancy. Highlights include Forsgren and Malm's excellent chapter on herpes simplex infection, and Mandelbrot and Newell's thorough review of vertical transmission of hepatitis viruses. I was disappointed to see no detailed discussion of HTLV-I infection or a more detailed review of the role of perinatal infections in cerebral palsy.

Two other criticisms could be a relative lack of assessments of cost effectiveness of screening programmes already in place and for the future. The introduction of new screening programmes and the retention of existing screening programmes—for example, syphilis and rubella, need to be increasingly driven by cost-benefit analysis. It would also be interesting to have had some speculation about why different infections have such different vertical transmission rates and have their impact at different stages of pregnancy.

Overall, the strength of this book lies in its literature reviews. It is an extremely good summary of where we are at with perinatal infections in the year 2000. Who will find it useful? It is a postgraduate text, too detailed for undergraduates. It should be compulsory reading for obstetricians in training. I would recommend it to perinatologists, obstetricians, and genitourinary medicine physicians. It is a practical text with dosages, immunisation schedules, and treatment algorithms. It is reasonably priced. There are larger textbooks on perinatal infections costing £200, so this fills a gap in the market. Buy it and you won't be disappointed.

M SHARLAND

Department of Paediatrics, St George's Hospital,
London SW17

Condoms. Edited by Adrian Mindel. £19.95; Pp 230. London: BMJ Books, 2000. ISBN 9780727912671

Considering we inquire about or promote the use of condoms with each and every patient we see in GU/HIV clinics, it's extraordinary how little we know about them. "Penis protectors" have come a long way since they were used in battle, cast to size, and made from goat bladder, although "natural" condoms can still be obtained today from the caeca of New Zealand lambs. Thanks to Charles Goodyear, the birth control movement, and the HIV epidemic the condom has enjoyed a renaissance and with more strin-

gent quality control and legal standards, has become a life saving device. The chapter on latex condom manufacture was fascinating and gives almost enough detail to allow you to try it at home!

Each year 8–10 billion condoms are used worldwide although an estimated 15 billion are required to protect adequately against HIV/STDs. The chapter outlining the effectiveness of condoms in preventing STIs was clearly set out with an excellent summary table outlining data and references. There was a fascinating chapter on how the commercial sector has risen to the challenge of global condom distribution through social marketing. By using pre-existing infrastructure, supplies to Africa have increased from 45.8 million in 1987 to 264.5 million in 1990. In Thailand by targeting commercial sex workers through “the 100% condom programme” usage rates have increased from 14% in 1982–9 to 93% in 1993 with STI cases in government clinics dropping from 237 000 to 39 000. In the chapter on condoms and commercial sex there was a fabulous table summarising different condom usage rates by CSWs in developing countries.

The condom should probably receive more credit as a contraceptive device. Failure rates diminish with increasing experience and it may be a suitable long term option for some women when combined with knowledge of fertile days and progesterone only emergency contraception. There were interesting discussions on the use of condoms for anal sex, the pros and cons of non-latex condoms, female condoms (becoming increasingly popular, especially in Zimbabwe), and recent developments in spermicides and virucides.

In summary, condoms are highly effective, cheap, and largely free of side effects. This book left me with a renewed belief that they should be promoted at every opportunity and efforts to make them universally available should continue unabated. I would highly recommend this book to anyone working in the field of sexual health.

GILL DEAN

*The Lawson Unit, Royal Sussex County Hospital,
Eastern Road, Brighton BN2 5BE*

CD-ROM REVIEW

Topics in International Health: HIV/AIDS. £30 for individuals, £20 or £45 for institutions in developing countries, and £120 for “first world” institutions, post inclusive with a 30 day money back guarantee. CD-Roms are not Apple Mac compatible. Oxon: CABI Publishing, 2000.

So the clinic's not going well—you've too many patients and four students have all rolled up at once. Trouble is, they are all bearing evaluation forms, and hanging around the corridor is not going to be great for departmental kudos in the medical school teaching stakes. CD-Roms are now the standard fall back for a loose half hour—and this one is definitely the way to get top ratings. It is superbly designed with a host of easy features. Technically there were no problems with installation, and the package

ran happily on a Pentium 100 with limited memory, which is welcome when the latest PCs remain out of reach to most in the NHS or in resource-poor countries.

The CD-Rom covers the whole of HIV/AIDS from testing through opportunistic disease to the psychosocial and community impact of the unfolding epidemic. The well crafted material is grouped into 11 tutorials with 50-odd pages each, broken up with well designed interactive quizzes to aid factual recall, such as matching HIV prevalence to world region by dragging numbers across a map. In the best educational fashion, wrong answers are met with a gentle reminder of the right answer and an offer to review the section again. A glossary is just a click away should a word be unclear, and a full reference list is hidden on each page for those wanting to explore more. A separate section allows incredibly flexible searching of a rich international collection of over 700 images by keyword or text. These can then be viewed as thumbnails for rapid review, tagged for later printing, or saved in a personalised teaching set. Sneaking the illustrations onto my own 35 mm slides proved beyond my hacking ability, but I wanted to show just how good the pictures are.

Improvements for the next edition might include integrating the references with Medline abstracts (for example, offering searches for other works on the subject of interest or finding works which cite the article in question), and including more video material such as interviews with key players in the field.

On a deeper level, such an international approach to teaching HIV/AIDS fits well with the emphasis of the recent international AIDS conference on the whole HIV epidemic, not just the treatment options open to those affected by HIV in resource-rich countries. The sections on treatment reflecting mainly resource-rich practices sit uneasily with the pictures of AIDS orphans and underfunded African hospitals. That this CD-Rom left me feeling uncomfortable about the structural inequity of the world is testament to the vision of its creators.

A J WINTER

*Department of Genitourinary Medicine,
Sandyford Initiative, Glasgow G3 7NB*

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).

International Symposium on Disorders of the Prostate, 21–23 March 2001, Castres, France

Further details: Dr Mike Briley, Scientific Director, Pierre Fabre Medicament, Parc Industriel de la Chartreuse, F-81106 Castres Cedex, France (tel: +33 563 714 501; fax: +33 563 725; email: briley@pierre-fabre.imagenet.fr).

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.bmjpg.com).

Joachim Kuhlmann AIDS award 2001

The Joachim Kuhlmann AIDS Foundation, Essen, Germany, is awarding the above mentioned prize to investigators in the field of clinical and scientific HIV work. The prize is valued at 50 000 DM.

Papers that have been published in 2000 or are accepted for publication can be submitted to the foundation for anonymous review. The submitted papers must be received by 31 March 2001. The award will be presented to the winner as part of the 8th German AIDS Congress in Berlin.

Submissions should contain seven copies of the paper and should be sent to the: Joachim Kuhlmann AIDS Foundation, Bismarckstrasse 55, 45128 Essen, Germany.

Each of the submitted papers should contain a running title and may not indicate the names of the authors. An additional envelope should contain the running title on the outside and information in the inside as follows: first name, last name, date of birth, address, professional position, as well as the running title and the complete title of the submitted paper.

6th European Conference on Experimental AIDS Research (ECEAR 2001), 23–26 June 2001, Heriot-Watt University, Edinburgh, UK

Further details: ECEAR 2001 Conference Secretary, Division of Retrovirology, NIBSC, Blanche Lane, South Mimms, Potters Bar, Herts, EN6 3QG, UK.

International Congress of Sexually Transmitted Infections, 24–27 June 2001, Berlin, Germany

Further details: Congress Partner GmbH, Krausenstrasse 63, D-10117, Berlin, Germany (tel: +49-30-204 500 41; fax: +49-30-204 500 42; email: berlin@cpb.de).

10th International Congress on Behçet's Disease will be held in Berlin 27–29 June 2002

Further details: Professor Ch Zouboulis (email: zoubbere@zedat.fu-berlin.de).

20th World Congress of Dermatology, Paris, 1–5 July 2002

Further details: P Fournier, Colloquium, 12 rue de la Croix St Faubin, 75011 Paris, France (tel: +33 1 44 64 15 15; fax: +33 1 44 64 15 16; email: p.fournier@colloquium.fr; website: www.derm-wcd-2002.com).