Potential endocervical pathogens before termination

EDITOR, — Mike Cohn and Peter Stewart report the prevalence of potential pathogens in the cervical canal before termination of pregnancy.¹ An association between one of these pathogens (*Chlamydia trachomatis*) and increased morbidity after termination of pregnancy has also been reported.^{2,4} We recently conducted an audit of the effect of screening for *C trachomatis* (MicroTrak, Syva) and treatment in women seeking termination of pregnancy at Taunton and Somerset Hospitals. We studied all women offered termination between January 1990 and June 1991. They were divided into two groups. Those in group 1 (n=140) had a termination between January 1990 and May 1990, when no screening was done, and those in group 2 (n=306) had a termination between June 1990 and June 1991, when screening was routinely performed before termination. Those in whom *C trachomatis* was detected were treated post-operatively with doxycycline 100 mg twice daily for 10 days, and instructions for treatment of their sexual partners were given to their general practitioners.

C trachomatis was identified in 49 (16.0%) women in group 2. Forty two of these women were single nulliparous women aged 15-24. This represents 45.2% of terminations in this age group. In group 1, 17 (12.1%) patients were readmitted with abdominal pain, vaginal discharge, and fever. *C trachomatis* was detected in 11 of these patients. Two (0.5%) patients in group 2 were readmitted with fever, lower abdominal pain, and vaginal discharge. *C trachomatis* was not detected in either, and both responded to clavulanic acid and amoxycillin. The complication rate in group 1 was significantly higher (p<0.05) than that in group 2.

Our findings support those of Cohn and Stewart that *C trachomatis* is more commonly isolated in single young nulliparous women. The fact that *C trachomatis* was isolated in only a proportion of our complicated cases also suggests that other pathogens such as *Neisseria gonorrhoeae*, *Mycoplasma hominis*, and *Ureaplasma urealyticum* may be responsible for postoperative infections. We support the suggestion that all women routinely undergoing termination of pregnancy should be screened for potential pathogens. If this is not possible, however, we agree with Cohn and Stewart's suggestion that selective screening of young nulliparous women should be offered.

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EDITOR, — Mike Cohn and Peter Stewart's observations on the prevalence of potential pathogens in the cervical canal before termination of pregnancy are interesting but, I believe, do not support their conclusions.¹ They (arbitrarily) defined women with *Chlamydia trachomatis* or *Neisseria gonorrhoeae* infection as being at high risk of pelvic infection after termination without considering the size of the risk. *C trachomatis* was isolated from 155 of the 1784 women screened and *N gonorrhoeae* from three; we are not told if any women had both infections, but in any case this is a rate well below 10%. The authors go on to recommend "that all patients requesting termination of pregnancy are screened for potential endocervical pathogens" but fail to produce any evidence for a beneficial effect of such a screening policy.

I have produced a model that may be adjusted to any of several variables to predict the effectiveness of screening for *C trachomatis* before termination of pregnancy.² It must be borne in mind that not all women who are positive for *C trachomatis* develop pelvic infection, nor are those who are negative on testing immune to such infection. In fact, depending on the relative numbers who are positive and negative on screening, more women who are negative than are positive for *C trachomatis* may develop pelvic infection.

Using the model and assuming that 10% of women screened will have a positive result and that 15% of these women will develop pelvic infection, compared with 5% of those with a negative result, then if the screening test was entirely reliable and effective treatment was given 4-5% of women could be expected to develop pelvic infection compared with an expected 6% if screening had not taken place. The values used in this example are entirely consistent with various published papers. Estimates derived from this model hardly provide convincing evidence of the merits of such screening and show that an appreciable number of women destined to develop pelvic infection after termination of pregnancy would be falsely reassured by screening.

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EDITOR, — We believe that Mike Cohn and Peter Stewart's short report recommending that all patients requesting termination of pregnancy should be screened for endocervical pathogens has a major omission.¹ Anaerobic bacteria, which are isolated in large numbers from the vaginal secretions of women with anaerobic (bacterial) vaginosis, have long been associated with pelvic inflammatory disease, and surgical termination of pregnancy could lead to spread of these organisms to the upper genital tract. In addition, Larsson *et al* have shown that anaerobic vaginosis and chlamydia are independent risk factors for pelvic inflammatory disease after abortion and that treatment of anaerobic vaginosis leads to a reduction in complications after abortion.^{2,3}

It therefore seems appropriate to screen patients

attending for termination of pregnancy for both endocervical and vaginal infections, particularly anaerobic vaginosis.

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Cervical smear testing for immunosuppressed women

EDITOR, — Since the publication of our letter on the progression of borderline abnormalities on cervical smear testing¹ my attention has been drawn to the fact that in 1989 Grampian Health Board published guidelines on screening for cervical cancer which included advice for women who are immunosuppressed. The guidelines suggest that these women should have smears taken annually.

The guidelines are sent to every general practitioner's surgery. Unfortunately, as our retrospective review indicated, this advice needs to be reinforced to general practitioners and also to haematologists and oncologists, who seem to be equally unaware of it. Improving patients' awareness of their potential risk of cervical cancer would also ensure annual attendance.

There is an excellent cervical screening service in Grampian region, but the principle that immunosuppressed women should have annual smear testing is clearly not being practised.

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Heterosexual spread of HIV infection

EDITOR, — In her editorial on heterosexual spread of HIV in the United Kingdom Anne M Johnson uses infection with penicillinase producing *Neisseria gonorrhoeae* as an example of a sexually transmitted disease that has been imported into the United Kingdom and subsequently "thrived locally."¹ Our experience in a busy genitourinary medicine clinic is at odds with this statement. Although in 1982 it seemed that penicillinase producing *Neisseria gonorrhoeae* was becoming

Year	Cases reported to CDSC	Cases of PPNG infection at St Thomas's	PPNG infection at St Thomas's as % of reports to CDSC	Cases of gonorrhoea at St Thomas's	PPNG infection as % of cases of gonorrhoea at St Thomas's
1986	699	86	12.3	1413	6.1
1987	379	32	8.4	867	3.7
1988	289	25	8.7	588	4.3
1989	246	59	24.0	907	6.5
1990	269	54	20.1	1019	5.3
1991	192	54	28.1	1026	5.3

endemic in London,² later analysis has proved this wrong (table) despite this organism's success elsewhere in the world.

Though under half of infections presenting to the genitourinary medicine clinic at this hospital have been acquired outside the United Kingdom, 90% of our patients infected with penicillinase producing *Neisseria gonorrhoeae* have a demonstrable foreign connection and "second generation" sexual transmission is rare. Far from thriving, penicillinase producing *Neisseria gonorrhoeae* seems to need constant topping up.

Heterosexual syphilis remains uncommon in the United Kingdom. After a clutch of cases in the late 1980s³ we saw 22 cases of early infectious syphilis in heterosexuals during 1989-91, of which 14 were imported. Our figures are borne out nationally: a review of sexually transmitted diseases from the Communicable Disease Surveillance Centre stated that an increasing proportion of cases of infection with penicillinase producing *Neisseria gonorrhoeae* and syphilis were acquired abroad during 1981-90 while the overall numbers continued to decline.⁴ If both of these infections are examples of the likely future of HIV infection in heterosexuals in the United Kingdom there may be hope as neither has established itself in the heterosexual community.

Finally, is it a little disingenuous to write (correctly) that the Cox and Day reports "emphasised the great uncertainty concerning future heterosexual spread" when the Department of Health and others have tended to quote the more pessimistic predictions (of exponential spread)⁵ rather than quoting that "a lower scenario, also consistent with available data, is that little new transmission is taking place . . . and that only minor increases will be seen in the next few years in the yearly number of cases due to injecting drug use or heterosexual contact."⁶

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AUTHOR'S REPLY.—David Barlow and J Sherrard comment on the current incidence of penicillinase producing *Neisseria gonorrhoeae* and syphilis in heterosexuals in the United Kingdom. My comments on the importation of sexually transmitted diseases were, however, clearly made in a historical context. Syphilis indeed thrived in heterosexuals in the United Kingdom and throughout Europe for nearly 500 years, resulting in a heavy toll in morbidity and mortality. Though accurate figures are hard to come by before formal notification began, surveys in 1914 suggested that

12% of men and 7% of women in London suffered from acquired syphilis.¹ In 1925 reported cases of newly diagnosed syphilis in men and women exceeded 23 000 a year.² As Barlow and Sherrard indicate, infection with penicillinase producing *Neisseria gonorrhoeae* showed every sign of establishing itself as endemic in the early 1980s. In 1982 more than 70% of cases were acquired in the United Kingdom.³ Where infection with penicillinase producing *Neisseria gonorrhoeae* and syphilis part company from HIV infection is in the current availability of a highly effective cure. Rates of syphilis declined rapidly after the introduction of penicillin in the 1940s. Awareness of a rising incidence of infection with penicillinase producing *Neisseria gonorrhoeae* resulted in control measures, which included wider use of alternative antibiotics to penicillin and contact tracing through a comprehensive sexually transmitted disease service in the United Kingdom.

No effective cure yet exists for infection with HIV, the spread of which remains determined by its biological properties and by sexual and drug injecting behaviour patterns. Comparisons between the future prevalence of HIV and the current incidence of infection with penicillinase producing *Neisseria gonorrhoeae* and of syphilis are therefore unhelpful. In discussing the importation of sexually transmitted disease I had hoped to help readers take a longer term view of the problem and to consider the lessons of history.

Finally, Barlow and Sherrard reiterate the point that I made in my editorial that the Cox and Day reports emphasise uncertainty and present various projections consistent with the available data over the relatively short period of four years. In an attempt to put a balanced scientific view of heterosexually acquired HIV infection I deliberately referred to the official predictions of future spread and not to any secondary sources which have chosen to present selectively the extremes of the range of feasible scenarios discussed in these reports.

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Treatment of allergy

EDITOR.—The title of a recent news item by Luisa Dillner—"Alternative allergy treatments need clinical trials"—was slightly misleading since the second paragraph of the article was concerned with Professor Stephen Holgate's statements on the competence of certain doctors to treat allergy.¹ He is reported as saying, "We haven't recognised the importance of training people to treat allergy. We base our referral systems on organs and not on disease processes. . . . Ophthalmologists and ENT

surgeons see a lot of people with problems due to allergy but have no training in treating it." We believe that these comments are critical of the present systems of referral, as well as postgraduate training, and take issue with them.

Presentation is symptom based, and the subsequent assessment should result in diagnosis. Although patients may make an attempt at diagnosis, they rarely enter the clinic saying, for example, "I have a type one hypersensitivity to dust mite faeces." Until this enlightened state of affairs occurs patients with nasal allergy may present with various symptoms identical with those of other nasal and sinus conditions. The specialist has to be able to exclude not only the common conditions but also the rare ones that may cause symptoms. Part of this process entails examining the nose—few people outside the specialty of otolaryngology can do this effectively.

Though no courses are devoted exclusively to allergy, its importance is well recognised in our specialty. One of us has organised courses in practical rhinology which started as far back as 1984, with lecturers including basic scientists, allergists, chest physicians, and otolaryngologists. Similar courses are run regularly nationwide. Candidates for the final FRCS in otolaryngology are expected to understand allergy and its treatment.

We disagree with the idea that patients take to alternative treatment solely because doctors have failed them because they do not know how to treat allergy. The treatment itself may be unacceptable. People turn to alternative therapy for many reasons besides the failings of doctors or their treatments. They need mystery, magic, and ritual, and nowhere is this better recognised than in the treatment of allergy by some allergists, particularly in the United States.

We, and probably many other otolaryngologists and ophthalmologists, believe that the correct and enlightened approach is the involvement of interested practitioners in the treatment of allergic diseases. The picture in Britain is not nearly as dark as that painted by Dillner.

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Cardiac arrest associated with flumazenil

EDITOR.—In their drug point Yeshayahu Katz and colleagues report on a 60 year old man admitted with an extensive acute anterior wall myocardial infarction.¹ Adverse prognostic features included cardiac failure complicated by pulmonary oedema (serious enough to require mechanical ventilation) and haemodynamic instability associated with ventricular arrhythmia. The patient began to resist ventilation but was still drowsy, an effect considered to be secondary to the sedative action of diazepam. Details of the patient's cardiopulmonary status at this time are not provided. To facilitate weaning from the ventilator a total of 0.4 mg of the specific benzodiazepine antagonist flumazenil was given intravenously. This was followed by a refractory ventricular arrhythmia, asystole, and death.

The authors conclude that the fatal arrhythmia was due to a direct effect of flumazenil. They point out that this mode of action differs from that reported in earlier cases of death after flumazenil, in which the fatal event was a wearing off of antagonist activity.^{2,3}

Katz and colleagues' statements and conclusions are misleading. In their quoted references the