LETTERS TO THE EDITOR

Use and misuse of condoms

Prevention is currently the main weapon against the spread of human immuno-deficiency virus (HIV) infection and condom use is one of the major preventive measures recommended by public health services. It is useful to evaluate the rates and risks of condom breakage because of the repercussions regarding condom acceptability.

For this purpose, an anonymous self-administered questionnaire was distributed to condom buyers through pharmacies located in Paris, France. The questionnaire requested details on opinions about condoms, modes of use, the number of condoms used in the past 3 months, incidents and accidents during condom use, especially the number of condom breakages reported in the past 3 months. The following analysis was performed on 254 questionnaires from respondents having used at least 1 condom in the past 3 months. The study population used a total of 8230 condoms, the median number of condoms used per person being 20.

Of the 254 respondents, 57% (N = 145) were male heterosexual with a median age of 28 years (range: 16 to 61), 18% (N = 46) were homosexuals or bisexual males with a median age of 33 years (range: 18 to 57), and 25% were heterosexual women (N = 63) with a median age of 26 years (range: 17 to 56 years). The female respondents included seven prostitutes.

A quarter of the study population (N = 68) had experienced at least one condom breakage in the past 3 months. The overall rate of breakage per 100 condoms used was 4.5% (3.5-5.6) for homo/bisexuals compared with 1.5% (1.2-1.9) for non-prostitute heterosexuals ($p < 10^{-6}$). Prostitutes showed a significantly lower breakage rate than other heterosexuals (0.6% (0.3-1.0); $p = 0.006$).

Of the 254 respondents, 73% (N = 186) considered themselves as experienced condom users. Self report

of experience in condom use was highly correlated with the duration of use and the number of condoms used in the past 3 months. Among non prostitute heterosexuals, the breakage rate was 1.2% for experienced users compared with 2.5% for less experienced users ($p = 0.01$). Similarly, homo/bisexuals with good experience in condom use also broke fewer condoms than those with little experience with condom use (3.5% versus 9.8%; $p < 10^{-4}$). Our results suggest that a long experience in condom use significantly decreases misuse and thus the risk of breakage. Moreover, in this study as in another study of our group¹ in which questionnaires on condom use were available through a national newspaper, we observed that contraceptive use (as opposed to use for STD prevention) may help heterosexuals to gain experience in condom use (to use condoms more regularly and to find it easier to propose them to sexual partners).

Additional lubricants were used by 11% (N = 22) of the 208 heterosexuals, compared with 61% (N = 28) of the 46 homo/bisexuals. The lubricants were oil-based (known to deteriorate the latex of condoms²) for 35% of lubricant users. The rate of condom breakage did not vary with the addition of lubricant for heterosexuals using condoms for vaginal sex exclusively; but when extra lubricants were used for anal sex (irrespective of the sexual preference), the breakage rate increased significantly (OR = 3.7 (2.3-5.9); $p < 10^{-6}$). This result is difficult to interpret. It is possible that the effect of incorrect lubricants on latex becomes apparent mainly during anal intercourse due to the higher physical stress. However, we did not demonstrate any significant difference in condom rupture according to the type of lubricant used. This surprising result could be due to the respondents giving an incomplete list of substances they actually used as lubricants and also to their poor knowledge of the correct types of lubricants. In the study by Voeller,³ twenty-five men who experienced high rates of condom breakage mistakenly thought that the lubricants they used were water-based.

In conclusion, a high proportion of condom breakages are related to misuse and could be avoided. Despite repeated educational campaigns, there

seems to be a need for better information on types of lubricants to be used, and on the risk linked to misuse of oil-based products. Contraceptive properties of condoms should also not be neglected in order to promote condom use.

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Moraxella urethritis mimicking gonorrhoea

A case of moraxella urethritis mimicking gonorrhoea is described in which the patient may have acquired the organism through occupational exposure.

A 36 year old heterosexual male presented to the department of Genito-Urinary Medicine with a 3 day history of urethral discharge and dysuria. Examination revealed a purulent urethral discharge. Microscopy of a gram-stained preparation of urethral discharge showed copious pus cells and typical gram negative intracellular diplococci. The presence of larger, more oval shaped gram negative bacteria was also noted on the slide. Routine screening tests for sex-

ually transmitted diseases were performed. A provisional diagnosis of gonorrhoea was made, and the patient was treated with a single oral dose of 250 mg of ciprofloxacin followed by a two week course of Deteclo twice daily. He reported an intermittent sexual relationship with a known female partner, who was seen one week later at this clinic. She denied any other recent sexual contacts, and after careful testing (including rectal and throat swabs) was found to be free of genital infection.

Culture of the male patient's urethral swab yielded an organism of the moraxella group, but unfortunately the organism was not kept for further study. Chlamydia ELISA and gonococcal cultures were negative. At a review visit three weeks after commencing treatment, he was found to be clinically and microbiologically cured. He gracefully accepted an explanation about the nature of his infection, and volunteered the information that he was exposed to many unusual germs in the course of his work as a fitter at a pharmaceutical factory. The Occupational Health Doctor at this factory confirmed that *Moraxella urethralis* (recently renamed *Oligella urethralis*) was currently being studied. Category 2 precautions were being taken by staff handling the organism, but our patient was merely carrying out maintenance work in the department. It is possible that his hands may have become contaminated during work, and that he subsequently transferred the organism to his penis during urination.

Organisms of the moraxella group can be found as normal inhabitants of the mucous membranes of the respiratory and uro-genital tracts. They rarely cause disease although *M. lacunata* is a recognised cause of eye infection and other species are occasionally reported as a cause of serious systemic infection.

Moraxella urethralis is found almost exclusively in the urogenital tract of man. It is generally considered to be a non-pathogenic member of the normal mucosal flora at this site although isolates from blood cultures have been reported.¹ It includes some of the strains formerly called *Mima polymorpha* var *oxidans*. Differentiation in the laboratory from other *Moraxella* spp can be difficult² and is not often attempted in a routine diagnostic laboratory. The possibility of a

causative role in acute gonorrhoea was made for this organism many years ago^{3,4} although changes in taxonomy make interpretation of these earlier reports difficult.

It is suggested that the acute urethritis in this patient was caused by the *Moraxella* sp isolated from the clinical specimens taken at presentation, given the lack of other identifiable causes, the response to treatment and the documented microbiological cure. The possibility of another unidentified pathogen being responsible cannot be dismissed. The lack of infection in the reported sexual contact and the occupational exposure also raises the intriguing possibility that this infection was occupationally acquired.

Effective control of gonorrhoea requires that treatment and contact tracing of suspected gonorrhoea are commenced immediately on the basis of clinical and microscopy findings, before definite laboratory confirmation has been obtained. However, other organisms with a similar morphological appearance can also cause acute urethritis, and an erroneous diagnosis of venereal disease could be a very serious matter. There are several recent reports of urethritis caused by meningococci^{5,6} and this case indicates that moraxella could also be a cause. It is policy in our clinic to use the expression "suspected gonorrhoea" until a firm diagnosis has been established.

Microbiologists and genitourinary physicians have a responsibility to advise all staff working in their laboratories and clinics about the potential hazards and the appropriate precautions. This advice should include the need for staff to wash their hands before and after visiting the lavatory.

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Podophyllotoxin—is it user friendly?

Topical podophyllin has been standard treatment for ano-genital warts for many years. Self therapy may lead to local and systemic side effects. The active agent podophyllotoxin has been purified, in a stable form, and is marketed as a safe home treatment for male genital warts. We have encountered two cases where problems have resulted from home therapy.

Patient 1 presented with prepuce warts and was prescribed podophyllotoxin 0.5% twice daily for three days weekly. Routine screening for other sexually transmitted diseases was negative. He defaulted from follow up but was referred three months later by the general surgeons having been admitted with a possible strangulated right inguinal hernia. He had been unable to follow the podophyllotoxin application instructions. After the first application, his prepuce became swollen and took one week to subside. This was then repeated with the same response. After about 10 weekly applications, he had an excessive reaction taking him to A & E where cephadrine was prescribed. The following day his general practitioner arranged his admission. The surgeons noted severe balanoposthitis and referred him to us after commencing intravenous amoxycillin-clavulanic acid. He had secondarily infected podophyllotoxin burns with associated right inguinal lymphadenopathy. Once settled further treatment to the warts was by cryotherapy.

Patient 2 had been prescribed podophyllotoxin 0.5% by his general practitioner, either with instructions being misunderstood or not given and he had misinterpreted the product informa-