Chlamydial infections in children

EDITOR,—We know that Chlamydia trachomatis infections (serovars D-K) are a significant cause of morbidity in the adult population, particularly young women. This justifies the considerable efforts and costs of preventing, diagnosing, and treating chlamydial infections. It is also well established that Chlamydia trachomatis can cause conjunctivitis and pneumonitis in neonates and infants as a result of vertical transmission.

There is no doubt that symptomatic children should be treated but should we also treat asymptomatic carriers? What would be the benefits and drawbacks of treating asymptomatic children of mothers who have proved or have a history suggestive of Chlamydia trachomatis infection during their pregnancy? Should we treat these children systematically? Up to what age? These questions have recently arisen in our department after the diagnoses of Chlamydia trachomatis conjunctivitis in several small children.

The American guidelines for the management of sexually transmitted infection do not recommend prophylactic treatment to infants of chlamydia positive mothers but close clinical supervision and treatment if symptoms develop. These guidelines do highlight the importance of antenatal screening as the main method of early detection of Chlamydia trachomatis transmission in children. Routine prophylaxis with silver nitrate or topical antibiotics would not prevent Chlamydia trachomatis transmission. Neither the UK national guidelines nor the SIGN (Scottish Intercollegiate Guidelines Network) guidelines address the issue.

In preadolescent children sexual abuse should always be considered when a diagnosis of Chlamydia trachomatis has been made, although there are reports of perinatally transmitted infections up to the age of 3 and in our department a family cluster of Chlamydia trachomatis infections has recently been reported, including a 6 year old girl in whom there was no evidence of sexual abuse.1

We await with interest the results of the pilot chlamydial screening projects in Portsmouth and the Wirral but suggest that routine antenatal screening for Chlamydia trachomatis infections with a nuclear amplification test (NAT) would reduce perinatal and infant morbidity and possible infection in children, who might be asymptomatic or not. At the very least, targeted antenatal screening of higher risk groups (young pregnant women up to 25, or those with new or multiple partners, as recommended by the American guidelines) should be clearly specified in the current UK guidelines. A negative reliable chlamydial test documented during a pregnancy would make a diagnosis of Chlamydia trachomatis infection in a child less likely to be of vertical perinatal transmission.

In the meantime, what should we do? Investigating and treating asymptomatic children as “contacts” may cause unnecessary anxiety and unpleasantness to both child and parents. Epidemiological antibiotic treatment is not exempt of risks to the individual patient and is likely to increase resistance in the general population.

We would welcome the view of clinicians and thus perhaps open a debate in an area of sexually transmitted infections in which not much is known.

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Self treatment among a sample of first time attenders at a genitourinary medicine clinic

EDITOR,—Many people self medicate or seek advice from others before attending a medical consultation and while this has been documented for a number of conditions, there is little reason to suppose the behaviour will be different for a sexually transmitted infection (STI). There may be specific problems with self medication for STIs since they may mask signs and symptoms and prescribed use of antibiotics may select for resistance among strains of Neisseria gonorrhoeae and other bacteria residing within and outside the genital tract.1 We examined all aspects of self care in a sample of first time attenders at a GUM clinic in the United Kingdom. There were 492 consecutive first time attenders in a 3 month period, of which we achieved the participation of 188 clients (128 females, 60 males).

Information was collected via structured interview carried out by a health adviser. We asked about a range of issues concerning treatment seeking and symptoms experienced by clients. We specifically asked clients what measures they had taken between suspecting an STI and attending the clinic. Forty four respondents (23%) reported using a medication or remedy before attending the clinic. A total of 80 remedies were mentioned, although only a few respondents discussed their treatment. It is in uncircumcised men.

In 1855, Hutchinson,1 in England, reported a syphilis:gonorrhoea ratio of 0.23:1 for Jews and 1.54:1 for non-Jews (all ratios in this letter are my re-expressions of the original data). In 1934 Wolfart,2 a NY urologist examining 1500 cases, reported a ratio of syphilis and chancroid to gonorrhoea of 0.36:1 for circumcised men and 0.11 for uncircumcised men (only 5–25% of American men can be routinely circumcised in the late 19th century/early 20th century).1 I note from Diserék et al’s table 2 (Cross section analysis at baseline) that the ratio of syphilis to gonorrhoea is 0.06:1 in circumcised men.

Circumcision and STD in the United States

EDITOR,—The study by Diserék et al., though examining too small a study population to obtain statistically meaningful results in some aspects, is commendably objective. Their study tends to confirm previous research findings relative to circumcision versus syphilis and gonorrhoea, the majority of which indicate a strong (protective) relation between the non-circumcised state and syphilis and a weaker relation with gonorrhoea.

A brief examination of this and several previous studies going back 150 years on circumcision versus syphilis and gonorrhoea reveals an intriguing relation: syphilis is proportionally lower in circumcised men than it is in uncircumcised men.

In 1855, Hutchinson,1 in England, reported a syphilis:gonorrhoea ratio of 0.23:1 for Jews and 1.54:1 for non-Jews (all ratios in this letter are my re-expressions of the original data). In 1934 Wolfart,2 a NY urologist examining 1500 cases, reported a ratio of syphilis and chancroid to gonorrhoea of 0.36:1 for circumcised men and 0.11 for uncircumcised men (only 5–25% of American men can be routinely circumcised in the late 19th century/early 20th century).1 I note from Diserék et al’s table 2 (Cross section analysis at baseline) that the ratio of syphilis to gonorrhoea is 0.06:1 in circumcised men.


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and 0.091 for uncircumcised men, while Table 4 (Cohort analysis—new STD) reveals 0.07:1 for circumcised men and 0.11:1 for uncircumcised men.

While the foregoing is obviously a very limited statistical analysis and other factors may play a part, it is nevertheless fascinating to see the consistently lower syphilis:gonorrhea ratio in circumcised men, indicating a potential protective effect by circumcision against syphilis far more so than against gonorrhea. Secondly, the syphilis:gonorrhea ratio would appear to have decreased dramatically over time, which raises a question: if circumcision is more effective against syphilis than it is against gonorrhea and considering the popularity of neonatal circumcision in the United States over many decades, would we not expect—ceteris paribus—to see in time a general decrease in the United States of syphilis in both relative and absolute terms?

I would encourage Diseker and colleagues to follow up their interesting study with further research on a larger scale into the relation between circumcision and STDs in order to publish more precisely the degree of protection, if any, afforded by circumcision as a prophylactic health measure.

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Hepatitis B and C seroprevalence in Novosibirsk, western Siberia

EDITOR,—Chronic liver disease represents one of the major public health problems in Western countries. Hepatitis B and C viruses are becoming the main causes of cirrhosis and primary carcinoma. Hepatitis C virus (HCV) accounts for approximately 20% of cases of acute hepatitis, 70% of chronic hepatitis, and 30% of end stage liver disease in the United States.1 Today, injecting drug use and high risk sexual activity are the most frequently identified risk factors associated with HCV infection.2 Likewise, in areas of high endemicity of hepatitis B virus (HBV), potential transmission is the main route of transmission, whereas in areas of low endemicity, sexual contact among high risk adults is predominant.3

Epidemiology of viral hepatitis is studied mostly in blood donors and patients; however, it is unknown whether donors represent the general population. The prevalence of viral hepatitis among children and adolescents is rarely investigated. However, in Italy the highest incidence of new hepatitis B cases (approximately 10 in 100 000) currently occurs in subjects between 15 and 24 years of age,1 and in Russia young adults aged 15–29 account for 70–80% of acute viral hepatitis cases.4

The aim of the present study was to evaluate the occurrence of HBV and HCV markers among various population groups of Novosibirsk (western Siberia), Russia. Novosibirsk is the largest city in Siberia and the third one in Russia, with a population of approximately 1.4 million. The following groups of participants were examined in 1995–95:

- A random representative sample of adult population aged 25–64 years (161 males, 213 females).
- A random representative sample of school students aged 14–17 years (170 males, 226 females).
- Students of medical college aged 18–29 years (9 males, 94 females).
- Students of medical university (IV–VI grades) aged 17–31 years (40 males, 133 females).
- Blood donors (4552 people).

The study was approved by the local ethics committee, and each participant gave informed consent. HBsAg and anti-HCV antibody tests were performed in serum samples using previously validated second generation ELISA kits (‘Vector-Best,’ Novosibirsk, Russia).

The prevalence of viral hepatitis B and C markers among various population groups are shown in Table 1. Prevalence of HBsAg and anti-HCV antibodies were found to be significantly higher among adult general population than in blood donors. Among schoolchildren, no differences were found between males and females. In adults, HCV was detected more frequently in males compared with females (8.2% and 3.3% respectively, p <0.05). The association of both infections were found in 8.2% of males, 4.2% of females. In adults, HCV was detected more frequently in males compared with females (8.2% and 3.3% respectively, p <0.05). The association of both infections were found in 8.2% of males, 4.2% of females.

In conclusion, seroprevalence of HBV in Novosibirsk is similar to that in central Russia; however, prevalence of HCV is higher in the European part of Russia, especially among males.

Prevalence rates of viral hepatitis markers in the general population are 2–2.5 times higher than in blood donors. Blood donors could not serve as a basis for assessment of viral hepatitis prevalence in the community. Medical students in last grades represent a risk group for the acquisition of the viral hepatitis infections.

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<table>
<thead>
<tr>
<th>Group</th>
<th>No</th>
<th>Mean age (years) (SD)</th>
<th>HBsAg (%)</th>
<th>HCV (%)</th>
<th>Both markers (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td>423</td>
<td>15.5 (0.1)</td>
<td>43/57</td>
<td>2.1</td>
<td>2.6</td>
</tr>
<tr>
<td>Medical college</td>
<td>103</td>
<td>19.4 (0.1)</td>
<td>9/91</td>
<td>0</td>
<td>2.9</td>
</tr>
<tr>
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<td>173</td>
<td>21.4 (0.2)</td>
<td>23/77</td>
<td>3.5</td>
<td>0.6</td>
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<tr>
<td>Donors</td>
<td>374</td>
<td>42.0 (0.5)</td>
<td>45/57</td>
<td>2.4</td>
<td>3.3</td>
</tr>
<tr>
<td>Medical college</td>
<td>103</td>
<td>19.4 (0.1)</td>
<td>9/91</td>
<td>0</td>
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<td>2.4</td>
<td>3.3</td>
</tr>
</tbody>
</table>

Table 1 Prevalence rates of HBsAg and anti-HCV antibodies among various population groups

NA = data not available.


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Antimicrobial resistance among Neisseria gonorrhoeae isolates from Ulaanbaatar, Mongolia

EDITOR,—We read with interest “The antibiotic susceptibility of Neisseria gonorrhoeae isolated in Ulaanbaatar, Mongolia” by Lkhamsuren et al.1 We also found high levels of resistance to penicillin, tetracycline, and ciprofloxacin. Of the 13 isolates which were successfully transported to our reference laboratory in Birmingham, seven (54%) were PPNG, 3/13 (23%) were chromosomally resistant to penicillin, 2/13 (15.4%) were chromosomally resistant to tetracycline and 3/13 (23.1%) were resistant to ciprofloxacin with minimum inhibitory concentration (MICs) equal to 1 mcg/ml. However, we would like to clarify that although on site susceptibility testing in Ulaanbaatar using disk diffusion suggested resistance to ceftriaxone in some isolates, this was not confirmed by MICs.2 We agree with the authors that antibiotic resistance is a significant problem in Ulaanbaatar and that a surveillance system for antimicrobial resistance is needed.

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Dangers of the sexual health strategy

EDITOR,—The long awaited strategy for sexual health1 promulgates some shibboleths and proposes some targets, which may increase sexually transmitted diseases and associated suffering.
A statement such as: “Some genital wart infections are associated with cancer, as is Chlamydia” may contribute to the anxiety that constitutes much of the burden of morbidity which such mostly innocuous conditions often engender. The proposed target to increase uptake of HIV testing in GUM clinics may increase HIV neurosis. Offering an HIV test on first screening may lead to false reassurance and increase the chance of undiagnosed HIV infection, since many patients attend within three months of sexual exposure. The unlimited anonymous HIV prevalence survey has shown little change in the rate of undiagnosed HIV infection in heterosexuals attending GUM clinics between 1990 and 1999. The most recent (1999) rate in heterosexual men outside London is 0.09 %. Increasing the uptake of HIV tests to 60 % by the end of 2007 may miss this tiny fraction; the total number of undiagnosed samples from heterosexual men outside London in 1999 was only 14. Efforts by increasingly stretched professionals in sexual health services to meet targets set by the strategy will result in less energy and time available for more appropriate approaches to the burden of sexually related morbidity.

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1 The national strategy for sexual health and HIV. DoH 2001.
4 Unlimited anonymous prevalence monitoring programme annual report to end of 1999. http://www.phls.co.uk

Correction

On page 34 of the article, the authors state that reports of C. trachomatis genital infections were confirmed with "Transcription Mediated Amplification" (Gen-Probe, San Diego, USA). For this study, cases were ascertained from notifiable medical event case reports from US military treatment facilities worldwide. The case reports did not document the specific tests that were used to confirm each diagnosis. The authors regret this error and any confusion it may have caused.
Antimicrobial resistance among Neisseria gonorrhoeae isolates from Ulaanbaatar, Mongolia

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