Asymptomatic urethral gonorrhoea in men

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SUMMARY Over a period of nine months 203 cases of urethral gonorrhoea were seen in 188 men. In 36 (17%) of the cases there were no symptoms, and in 14 (7%) the symptoms were considered so mild that the patients thought medical care was unnecessary. The symptomless patients and those with mild symptoms were found only as a result of efficient contact tracing. This high incidence illustrates the importance of good contact tracing and careful investigation.

Introduction

Heterosexual men who have been in contact with gonococcal infection usually develop symptoms of urethritis with a purulent urethral discharge and dysuria. However, asymptomatic urethral infection can also occur in men. One of the earliest references to this condition was by Bittiner and Horne (1955), who reported the existence of the male gonorrhoea 'carrier' (a man with the disease and capable of transmitting it but with no symptoms or with symptoms so slight as to be ignored). In the present report of asymptomatic urethral gonorrhoea in men we have followed this definition. This varies from that of Pariser (1972) and Wallin (1974), who defined asymptomatic infection as the condition in which there are no clinical signs or symptoms of the disease detected by either the patient or the examining physician.

After we had noticed Neisseria gonorrhoeae infection of the urethra in symptomless men, we decided to undertake a detailed survey of urethral gonorrhoea in men; this survey showed that in 36 out of 203 consecutive cases of urethral gonorrhoea there were no symptoms.

Materials and methods

The survey was carried out on male patients who attended the clinic as named contacts of N. gonorrhoeae infection on the advice of their sexual partner or contact tracer (Table). Thirty-six out of the 50 were totally symptomless, and of the remaining group of 14 cases in 14 patients 10 had slight discomfort in the urethra and four had slight urethral discharge. This group of 14 thought these symptoms were not serious enough to seek medical advice. When studied in detail 17 out of the group of 36 showed signs of a scanty urethral discharge on squeezing the urethra, which had not been previously noted by the patient. These 36 cases occurred in 31 patients; of these 61% were white (British), 33% coloured (West Indians), and 6% were other nationalities; seven had had previous attacks of gonorrhoea; but none of the 36 had taken antibiotics in the preceding two months. In the group of 14, 79% were white (British) and 21% were coloured (West Indians); six had had previous attacks of gonorrhoea; but none had had antibiotics in the preceding two months. In the group of 143 patients with 153 cases of gonorrhoea, 51% were white (British), 39% coloured (West Indians), 3% Asians, and 7% other nationalities; 41 of them had had previous attacks of gonorrhoea.

<table>
<thead>
<tr>
<th>Clinical data</th>
<th>No. of patients</th>
<th>% (n = 203)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No symptoms or signs*</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>No symptoms† but slight discharge on examination</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>Slight discomfort only but no discharge</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Slight discharge which had been ignored</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

*As defined by Pariser (1972) and Wallin (1974)
†Included using definition of Bittiner and Horne (1955)
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The diagnosis of gonorrhoea was established by Gram-stained smear and culture from the urethral discharge where present and by a scrape of material from the anterior urethra for smear and cultural studies in those patients with no obvious discharge. The scrape was done with a sterilised platinum loop introduced 2 cm into the urethra and gently scraped and smeared on a glass slide for Gram-staining. A thin, plain, sterile swab was introduced into the urethra about 2 cm and was sent to the local public health laboratory in Amies transport medium, where it was inoculated on to a non-selective medium (ordinary blood agar plate) and on to a selective medium (modified Thayer-Martin medium). It was then incubated at 37°C for 48 hours in a humidified atmosphere containing 5–10% CO₂. Colonies of N. gonorrhoeae were subjected to the oxidase test and sugar fermentation studies.

Patients under study had held their urine for a minimum of two hours before the investigation. A two-glass urine test was carried out after the above tests. The reason for attending the clinic and the diagnosis of the contacts were also recorded.

Results
All the 36 asymptomatic cases and 12 of the 14 with slight symptoms attended the clinic following contact tracing. In the asymptomatic group of 36 both smears and cultures were positive in 23, smears alone were positive in nine, and cultures alone were positive in four. The two-glass urine test was clear in 25 out of the 36 symptomless cases. In the group of 14 with symptoms ignored by the patients smears and cultures were positive in 11, and smears alone were positive in three. The two-glass urine test showed small threads in eight and was clear in six.

The 36 entirely symptomless cases formed 17% of the whole group with urethral gonorrhoea. The additional group of 14 with mild symptoms constituted 7% of the total.

Discussion
A high incidence of asymptomatic gonorrhoea has been reported in women on many occasions. Chapel and Smeltzer (1975) reported an incidence of 35·4%, Wallin (1975) 50%, Nielsen et al. (1975) 57%, and Pariser (1976) 70%. This asymptomatic state in women is important in the spread of gonorrhoea. The same applies to asymptomatic

*Derby modification of Thayer-Martin medium consists of Columbia agar base, defibrinated horseblood, and antibiotic solution (vancomycin 1·5 µg/ml, nystatin 6·2 units, polymyxin B 20 units and trimethoprim 2 µg/ml). This modification is based on the susceptibility of locally isolated strains to the antibiotics, especially to trimethoprim.

References
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