Sir,

Chlamydia trachomatis and Neisseria gonorrhea are the leading reportable causes for sexually transmitted diseases (STDs) in the United States.[1,2] In the United Kingdom, gonorrheal disease is considered the second most common sexually transmitted infection of bacterial origin.[3] In France, the average number of Neisseria gonorrhea isolated per laboratory per year decreased from 10.6 in 1986 to 0.6 in 1997, but then increased yearly to reach 1.9 in 2000.[4] Also, gonococcal and nongonococcal urethritis are the most commonly reported STDs in China since the re-emergence of STDs in the late 1970’s and early 1980’s.[5]

Among individuals with gonorrheal infection, 3.3–37% of men had a chlamydial coinfection, and 12–28% of men with chlamydial infection had a gonorrheal coinfection.[6, 7] Although gonorrheal and chlamydial infections can be easily diagnosed, treated, and cured, the undetected and untreated infections lead to severe and costly health problems such as pelvic inflammatory disease, ectopic pregnancy, and infertility in females; and testicular and prostate infections and infertility in males.[8]

At the national level of Kuwait, the information on reported cases of gonorrheal and chlamydial infections are limited and often missing. Hence, our goal is to determine the co-occurrence of both these diseases among men with urethral discharge as well as to establish the efficacy of PCR in the diagnosis of gonococcal urethritis.

This study was conducted in the STD clinic of Adan hospital, which is the referral to the whole south region of the state of Kuwait. Men attending STD clinics and currently having any of the STD symptoms (e.g., genital discharge, itching, burning or pain during urination) were examined and only those patients with urethral discharge and past history of heterosexual intercourse confirmed by clinical examination (visible or milking when necessary) were included in this study. Two urethral swab samples were taken. The swab was inserted 1–2 cm into the urethra and rotated for 30 seconds before withdrawing. One sample was smeared on a slide and examined after Gram staining and the other was stored at −20°C to test for the presence of Neisseria gonorrhea and Chlamydia trachomatis by PCR assay.

The study conducted between October 2005 and 2006 had a total of 475 newly registered cases of men complaining of urethral discharge with past history of heterosexual intercourse. The mean age of the patients was 32.5 years with standard deviation of 7.62 years (range: 17–61 years). Of the 475 patients, 125 (26.3%) were diagnosed with gonococcal urethritis, 47 (9.8%) were diagnosed with chlamydial urethritis, and 11 (2.31%) were diagnosed with coinfection of both Neisseria gonorrhea and Chlamydia trachomatis. The chlamydial coinfection among patients with gonorrheal urethritis was 8.1% (11/136), while gonorrheal coinfection among patients with chlamydial urethritis was 18.9% (11/58) [Table 1].

The correlation of the results of both Gram stain and PCR for diagnosis of gonorrhea, they agree in 134 cases (98.52%) of totally 136 diagnosed cases of gonorrhea, and disagree only in two of the cases (1.48%). The overall correlation between the two methods was 99.4%.

Consistent with previous studies, we found high proportions of individuals carrying both chlamydial and gonococcal infections among those infected with either of the two diseases.[6,7,9]

Consistent with our results, Juchau et al.[10] concluded

<p>| Table 1: Number of patients tested and infections detected along with coinfection rates |
|-------------------------------------|------------------|------------------|------------------|</p>
<table>
<thead>
<tr>
<th>Study cohort</th>
<th>Total no. of patients with gonorrhea (%)</th>
<th>Total no. of patients with chlamydial infection (%)</th>
<th>No. of patients with both infections (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>475</td>
<td>125 (26.3)</td>
<td>47 (9.8)</td>
<td>11 (2.31)</td>
</tr>
<tr>
<td>Total</td>
<td>183/475 (38.52)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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that the correlation between PCR and Gram stain examination for diagnosis of gonorrhea was 99.6%. Thus, we conclude that there is no practical reason to use PCR examination for diagnosis of gonorrhea in symptomatic males owing to its high cost.

Abdel-Hamid F. El-Gamal, Sultan R. S. Al-Otaibi, Abdullah Alshamali, Adel Abdulrazzaq, Nabeel Najem, Abdulwahab Al. Fouzan
Departments of Dermatology and Microbiology, Adan Hospital, State of Kuwait

Address for correspondence:
Dr Abdel-Hamid El-Gamal, P.O.Box:2193 Al-qurain 47372, Kuwait. E-mail: abdl7mid@yahoo.com

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