Finger nails as a reservoir for Candida albicans in recurrence of vaginal candidosis

Sir, Recurrent vaginal infections with Candida albicans remain a substantial clinical problem. Many explanations have been given for recurrence, including reinfection from an intestinal reservoir1,2 or a sexual partner,3,4 and hypersensitivity or other abnormalities of the local immune response to C. albicans.5-8

As pruritus is a major symptom of Candidal vulvovaginitis, there has always been a conjectural possibility that the patient's finger nails, used to scratch the affected vulva, may act as a temporary reservoir of C. albicans for reinfection. We recently obtained evidence of this route of reinfection in one patient in the course of a larger investigation, in which isolates of C. albicans from multiple anatomical sites were identified by standard methods and C. albicans isolates were biotyped.9,10

The patient, a woman aged 40, first presented at the genitourinary medicine clinic of Leicester Royal Infirmary with signs and symptoms of vulvovaginal thrush. She had received a course of antibiotics two weeks previously and a course of metronidazole one week previously. Single swabs were taken from the vagina, urethra, anus, mouth, and finger nails (in the latter case one swab was rubbed sequentially beneath all ten nails), and were plated on Sabouraud dextrose agar (Oxoid). All the samples were positive for yeasts, with confluent growth obtained from the vaginal and urethral swabs and a single colony from the oral and nail swabs. The isolate from the finger nails was identified as Trichosporon cutaneum. Those from the other sites were all identified as C. albicans biotype 117.

The patient was given a single 500 mg clotrimazole pessary and clotrimazole cream to be applied to the vulva daily. She returned for follow up seven days after the initial examination. On this occasion no yeasts were isolated from oral, anal, urethral, or vaginal swabs and the patient was free of symptoms. The swab from the finger nails, however, yielded three colonies of C. albicans biotype 117. The patient was given a further seven day course of topical vaginal antifungal treatment. Two weeks later she returned to the clinic complaining of a recurrence of her symptoms of thrush. On this occasion the vaginal swab only was positive for yeasts — once again C. albicans biotype 117 was isolated.

The pattern of transmission of the C. albicans in this case seems to be clear, as in the period between recurrences only the finger nails were positive for C. albicans and the biotype isolated from the finger nails had evidently replaced the previous yeast flora. The extra information given by the biotyping tests confirms that the recurrence was caused by the same strain of C. albicans as before. It should be pointed out that evidence of the type of transmission documented here is obtained only rarely even when a prospective survey of multiple sites for C. albicans is undertaken, as it requires, among other things, reattendence of the patient at the clinic at the appropriate sample times, which is not always a matter within the control of the clinic. The overall carriage rate of yeasts under the finger nails of women in our larger survey (to be published elsewhere) is about 11%, with C. albicans implicated in about a quarter of patients yielding yeasts. This carriage rate suggests that finger nail reservoirs of C. albicans for vaginal reinfection occur rarely, but consideration of this possible route of reinfection may sometimes be useful in cases refractory to genital antifungal treatment.

Yours faithfully,

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References
**Correspondence**

**TABLE Prevalence of antibody to cytomegalovirus (CMV) and history of sexually transmitted disease (STD)**

<table>
<thead>
<tr>
<th>History of STD</th>
<th>No (%) with antibody (n=232)</th>
<th>No (%) without antibody (n=63)</th>
<th>$X^2$</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syphilis</td>
<td>29 (13)</td>
<td>4 (6)</td>
<td>1.9</td>
<td>NS</td>
</tr>
<tr>
<td>Gonorrhoe</td>
<td>60 (26)</td>
<td>8 (13)</td>
<td>4.8</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Non-specific urethritis</td>
<td>95 (41)</td>
<td>22 (35)</td>
<td>0.8</td>
<td>NS</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>47 (20)</td>
<td>6 (10)</td>
<td>3.9</td>
<td>0.05</td>
</tr>
<tr>
<td>Genital warts</td>
<td>53 (23)</td>
<td>8 (13)</td>
<td>3.5</td>
<td>0.05</td>
</tr>
<tr>
<td>Herpes</td>
<td>20 (9)</td>
<td>3 (5)</td>
<td>1</td>
<td>NS</td>
</tr>
</tbody>
</table>

CMV seropositivity in homosexual men might therefore be reflected in the number of patients infected with human T lymphotropic virus type III (HTLV-III) who progress to end stage disease.

**References**


**Notices**

*Organisers of meetings who wish to insert notices should send details to the editor (address on the inside front cover at least eight months before the date of the meeting or six months before the closing date for application."

**Grand Orient de Belgique masonic lodge, Les Amis du Commerce et la Perseverance Reunis, 4th medical prize**

In March 1987 the masonic lodge "Les Amis du Commerce et la Perseverance Reunis" in Antwerp will award its 4th medical prize of 30 000 ECU (£19 000).

The purpose of the prize is to reward a scientist or group of scientists who, in the course of their research work, have made a significant contribution to the progress of medical science whether theoretical or practical, fundamental or clinical. The prize may be divided between several candidates.

The prize will be awarded by jury of four members and a president appointed by the masonic lodge "Les Amis du Commerce et la Perseverance Reunis". The jury shall be entitled to call in experts for advice if it deems necessary. The members of the jury who will have been empanelled to attend the meetings will have to justify their judgment of the candidacies in writing. All deliberations will be made in camera and decisions made by a simple majority. All working expenses will be paid by the organising lodge.

The competition is open to any researcher whether certified or not, without discrimination of a racial, national, sexual, or philosophical nature. Candidacies for the prize must be sponsored by at least two freemasons whose masonic qualifications must be confirmed by their masonic authorities. In turn the sponsors will have to vouch in writing for the moral integrity of their candidates.

All applications must be accompanied by a detailed curriculum vitae of the candidates, a résumé of their scientific activities, and the opinion of the authorities under whom they work. All applications must be submitted before 30 December 1986 and addressed to: Mr René De Zuttere, Hoogpadlaan 101, B-2070 Antwerp, Belgium.

The jury will come to a decision not later than 31 March 1987. This decision will be final and not open to appeal. The prize will be presented during an academic session in Antwerp in May 1987. The masonic lodge "Les Amis du Commerce et la Perseverance Reunis" reserves the right to withhold the prize should the applications appear to be below standard.

**Eighth international meeting of dermatological research**

The eighth meeting devoted to dermatological research will be held under the auspices of the Société de Recherche Dermatologique in Nantes, France on 9 to 11 October 1986. The meeting will be organised by the department of dermatology, Centre Hospitalier Régional de Nantes, Hôtel-Dieu, Nantes, France (Director, Professor H Barrière). Further information, abstract forms, and application forms may be obtained from Dr JF Stalder, CARD Service de Dermatologie, CHU 44035 Nantes, France.