Torulopsis glabrata in vaginitis

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Summary

C. albicans accounted for 64.4% and T. glabrata for 29.2% of yeasts isolated from 65 vaginal swabs received for microbiological investigation of genital tract infections. Other yeast isolated at reduced frequency were C. guilliermondii and C. parapsilosis. T. glabrata was the second most common yeast isolated from both pregnant and non-pregnant females.

Key words – Yeasts, torulopsis glabrata, vaginitis guilliermondii

Introduction

Torulopsis glabrata, a commensal of the human gastrointestinal, urogenital and respiratory tract, has also been associated with a wide variety of infections ranging from vaginitis to peritonitis, septicemia, and endocarditis. Its etiological role in severe infections is well accepted but that in vaginitis is often questionable due to its frequent isolation from asymptomatic women. To confirm the association of T. glabrata with vaginitis in our local population, a preliminary study was undertaken to determine the frequency of isolation of T. glabrata from vaginal swabs submitted for microbiological investigation of genital tract infections.

Materials and Method

Vaginal swabs were cultured on Sabouraud’s dextrose agar and incubated at room temperature for 48 hours. C. albicans was identified by the formation of germ tubes in serum and the production of pseudohyphae and chlamydospores in cornmeal agar with tween 80 added. Yeasts that failed to form germ tubes or chlamydospores were further identified by fermentation reactions of glucose, trehalose, maltose, lactose and galactose in Wickerham’s media. Nitrate and carbon assimilation tests were also performed when necessary. T. glabrata does not form germ tubes, pseudohyphae or chlamydospores and it ferments and assimilates only glucose and trehalose.

Results

From a total of 65 specimens examined, there were 42 isolates of C. albicans, 19 of T. glabrata, two of C. parapsilosis and one each of C. guilliermondii and C. tropicalis (Table I). 45 of the 65 specimens were from patients with leucorrhoea and these yielded 32 isolates of C. albicans and 12 of T. glabrata. Leucorrhoea during pregnancy was seen in 17 of these patients. 10 vaginal swabs from patients with pelvic inflammatory disease yielded 6 isolates of C. albicans and two each of T. glabrata and C. parapsilosis.
Table 1

Yeast isolated from 65 vaginal swabs

<table>
<thead>
<tr>
<th>Clinical Histories</th>
<th>C. albicans</th>
<th>T. glabrata</th>
<th>Other yeasts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leucorrhoea</td>
<td>20</td>
<td>6</td>
<td>C. guilliermondii (1)</td>
</tr>
<tr>
<td>Leucorrhoea + diabetes mellitus</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Leucorrhoea + pregnancy</td>
<td>12</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Pelvic inflammatory disease</td>
<td>6</td>
<td>2</td>
<td>C. parapsilosis (2)</td>
</tr>
<tr>
<td>Histories unknown</td>
<td>4</td>
<td>5</td>
<td>C. tropicalis (1)</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>19</td>
<td>4</td>
</tr>
</tbody>
</table>

Discussion

Although results obtained in this study do not confirm the etiological role of T. glabrata, they do indicate its frequent association with vaginitis and its importance as the second most common yeast isolated from both pregnant and non-pregnant patients. Even though C. albicans was shown to be the main cause of vaginitis, the possibility of an etiological role for T. glabrata should not be discounted. There have been reports of T. glabrata and Candida species other than C. albicans causing "atypical thrush", and of C. tropicalis having higher recurrence rates than C. albicans. This information suggests a need for studies to confirm the etiological roles of these yeasts.

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References