Vulvovaginitis before puberty

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Introduction

Vaginal discharge in girls before puberty is a clinical challenge. The complaint is often caused by bacterial or non-specific vulvovaginitis.

According to the literature Group A streptococci (GAS) and Haemophilus influenzae are the most common species in bacterial vulvovaginitis in prepubertal girls.

We here report the microbiological findings, from the Department of Clinical Microbiology, which seems related to vulvovaginitis.

Materials and methods

- Retrospectively we have drawn 495 samples from the database of Department of Clinical Microbiology, Viborg (MADS). MADS contains all the microbiological answers from the coverage area of 230.000 citizens.
- Samples from girls, less than 10 years old, in the 10 years period between 2001-2011, were collected.
- The criteria’s for the search in the database were samples from vagina and vulva.
- The total amount of samples was 495 of which 133 showed significant bacterial growth.
- Most of the samples were taken by general practitioners and a few in the department of pediatrics.

Results

Age of 133 girls with significant bacterial growth

The most important differential diagnosis to bacterial vulvovaginitis are shown here.

Differential diagnosis

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Microbiological findings in the 133 samples

<table>
<thead>
<tr>
<th>Microorganism</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A Streptococci</td>
<td>45%</td>
</tr>
<tr>
<td>Staphylococcus aureus</td>
<td>13%</td>
</tr>
<tr>
<td>Haemophilus influenzae</td>
<td>11%</td>
</tr>
<tr>
<td>Group G Streptococci</td>
<td>9%</td>
</tr>
<tr>
<td>Candida</td>
<td>9%</td>
</tr>
<tr>
<td>Group B Streptococci</td>
<td>8%</td>
</tr>
<tr>
<td>More than one bacteria</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Conclusion

It is obvious that vaginal discharge is a common problem in girls before puberty.

The true prevalence is most likely greater than shown here. Probably samples aren’t taken from every girl with vaginal discharge. Only a minor part of the girls, with clinical signs of vulvovaginitis, was shown to have significant bacterial growth. GAS are the most common, along with H. influenzae and S. Aureus.

Studies of bacterial vulvovaginitis reveals, that girls with findings of GAS or H. influenzae should be treated according to antibiotic susceptibility.

Information about the normal vaginal flora in girls before puberty is almost non-existent.

If a sample show growth of potential pathogen it is a clinical judgment to decide if antibiotic treatment is required.

References