Treatment of Vaginal Candidiasis (Progress in Antifungal Therapy)

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Abstrak


Abstract

Symptomatic vulvovaginitis candidiasis is a common infection of the lower genital tract. Often considered a minor condition by physicians, it is a major source of discomfort for the patient, with symptoms including itching, burning sensation, dysuria, and dyspareunia. Due to predisposing precipitating factors, a high recurrence rate can be expected. The most common etiologic fungus is Candida albicans (over 80%), frequently isolated from the stool, vagina, and throat of apparently healthy persons. Management of this common unpleasant disease comprises of: 1. Assessment and if possible, removal of predisposing precipitating factors; 2. Implementing the use of antifungal drugs; 3. Education of the patient and advice about self-help remedies are useful adjuncts to drug therapy. Antifungal drugs used in the treatment of vaginal candidiasis are topical and oral polyene or triazoles. Topical antifungal treatment courses lasting 1-14 days usually produce excellent results, but compliance is usually poor. Relapse after an apparent successful treatment is fairly common. A one day treatment with a safe novel oral triazole, is a major advance to overcome the drawbacks of topical antifungal treatment.

Keywords: Vulvovaginitis candidae, Antifungal drugs, Polyene, Triazole.

INTRODUCTION

Vulvovaginitis candidasis is a common worldwide infection of the lower genital tract. Since in most countries this condition is usually not reported, accurate epidemiological data are not available. It has been estimated that vulvovaginal candidiasis affects 75% of sexually active women at some time.1 Approximately three quarters of all adult women will experience at least one episode of Vaginal Candidiasis during their lifetime.2 In Indonesia the data vary from 8-51%.3,4,5 Often considered a minor condition by the physicians, it is a major source of discomfort for the patients, with symptoms including itching, burning sensation, dysuria, and dyspareunia. In some women, this condition is chronic and recurrent. This situation can cause serious psychological disturbances, sexual embarrassment, as well as marital problems.

CLINICAL ASPECTS

Acute pruritis and vaginal discharge are the usual presenting complaints, but both symptoms, can occur in bacterial vaginosis, trichomoniasis, or vaginitis due to other causes. These symptoms can vary from mild and even intermittent, occurring only in the postmenstrual stage. The most frequent symptom present is vulvar pruritis. Vaginal discharge is variably present and frequently minimal. Although described as typi-
cally cottage-cheese-like in character, a thick yellow color milky in appearance, the discharge may vary from watery to homogenous thick. Vaginal soreness, irritation, vulvar burning sensation, dyspareunia and dysuria are commonly present. Odor if present is minimal and has a sour smell. Examination often reveals erythema and swelling of the labia and vulva, not infrequent with discrete pustulopapular lesion of the peripheral area. The vaginal mucosa is erythromatous with patches of gray-white pseudo-membranes. The cervix is normal.

ETIOLOGY

Vaginitis due to fungi is usually due to Candida species. Candida albicans is the most common isolated species with an estimate between 85-90%. The remainder are other Candida species and Torulopsis glabrata. Since many women carry Candida species, especially Candida Albicans in their gastrointestinal tracts and vagina without symptoms (colonization), there may exist local and/or systemic conditions that may predispose or precipitate symptomatic episodes. Factors assumed to be involved in the transformation from an asymptomatic colonization stage to symptomatic vaginitis are numerous. These factors are listed in the following Table 1 (revised from Sobel).

Table 1. Host factors implicated in the transformation from asymptomatic colonization to symptomatic vaginitis

- Antibiotics usage esp. prolonged use and broad spectrums
- Endogenous/exogeneous hormones eg. oestrogen / corticosteroid
- Pregnancy
- Immunosuppression or acquired antigen - specific immunodeficiency
- Uncontrolled diabetes mellitus
- Poor hygiene
- Extranestinal reservoir such as the gastrointestinal tract.

Besides these host factors there are certain factors influencing the virulence of the fungus such as fungal strain type, capacity to adhere to vaginal cells, amount of protease production and germ tube formation.

MANAGEMENT

The management of symptomatic vaginal candidiasis comprises of two steps:

1. Identifying the predisposing/precipitating factors, and if possible removal of these factors. Since over 50% of such precipitating factors can not be identified, antifungal treatment is nearly always required.

2. There is currently a long list of pharmaceutical antifungal agents available for the treatment of vaginal candidiasis. The active antifungal agents range from the specific group of the azoles or polene antifungals to the nonspecific antiseptics such as povidone iodine. Formulations available for local treatment are abundant: vaginal cream, tablets, suppositories and others. Besides the topical preparations available, there are oral preparations such as ketoconazole the first oral (agent) to be used in the treatment of vaginal candidiasis, itraconazole and fluconazole. A new triazole, saperconazol is undergoing clinical evaluation. Early reports showed promising results, safe and well tolerated. Our own experiments in treating vaginal candidiasis with itraconazole and fluconazole respectively 200 mg twice a day and 150 mg as a single dose, gave a cure rate of 88% (N = 30) and 83% (N = 29) (See Table 2).

Table 2. Therapy of vaginal candidiasis / antifungal agents

<table>
<thead>
<tr>
<th>Drug</th>
<th>Formulation</th>
<th>Dosage</th>
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<tbody>
<tr>
<td>Nystatin</td>
<td>10000 unit VAG tablet</td>
<td>1 tablet at bedtime 14 days</td>
</tr>
<tr>
<td>Miconazole</td>
<td>2% gynocream</td>
<td>5 g at bedtime 7 days</td>
</tr>
<tr>
<td>Clotrimazole</td>
<td>1% gynocream</td>
<td>500 mg vaginal tablet 5 g at bedtime 7-14 days 1 tablet at bedtime</td>
</tr>
<tr>
<td>Econazole</td>
<td>150 mg vaginal tablet</td>
<td>1 tablet at bedtime</td>
</tr>
<tr>
<td>Isoconazole</td>
<td>300 mg vaginal tablet</td>
<td>2 tablet at bedtime once</td>
</tr>
<tr>
<td>Fenticonazole</td>
<td>2% gynocream</td>
<td>5 g at bedtime 7 days</td>
</tr>
<tr>
<td>Tioconazole</td>
<td>2% gynocream</td>
<td>6.5% gynocream 5 g at bedtime 3 days 5 g at bedtime once</td>
</tr>
<tr>
<td>Terconazole</td>
<td>2% gynocream</td>
<td>5 g at bedtime 3 days</td>
</tr>
<tr>
<td>Butoconazole</td>
<td>2% gynocream</td>
<td>5 g at bedtime once 3 days</td>
</tr>
<tr>
<td>Ketoconazole</td>
<td>200 mg oral tablet</td>
<td>400 mg daily 5 days</td>
</tr>
<tr>
<td>Fluconazole</td>
<td>150 mg capsule</td>
<td>1 capsule once</td>
</tr>
<tr>
<td>Itraconazole</td>
<td>100 mg granules in capsule</td>
<td>200 mg bid one day</td>
</tr>
<tr>
<td>Saperconazole</td>
<td>200 mg daily</td>
<td>2 days 200 mg bid one day</td>
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Expected clinical and mycological response with topical nystatin range between 70-80 percent, while a slightly higher response rate can be expected i.e. 80-90 percent with topical imidazoles administered over a 5-7 days period. With such an abundant antifungal modalities in our armamentarium, we should consider certain factors before treating vaginal candidiasis. First of all an attempt should be made to identify the predisposing factor, and if possible removed. Secondly, in case of acute vaginal candidiasis, a single day or one dose of antifungal is recommended. The choice of oral versus topical preparations must be adjusted to the patient’s preference for better compliance. In chronic recurrent vaginal candidiasis, treatment needs more than one short course, either once or one day treatment. Longer courses of treatment should be recommended and even prophylactic pulse treatment prior to menstruation.

CONCLUSION

Recently there are several rapid acting single dose/day topical or oral preparations for the treatment of vaginal candidiasis. Cure rates achieved are about similar in percentage compared with the older, longer multiple dose. Oral antifungals are assumed to have the potential advantages of eliminating Candida from the deep mucosal layers of the vagina, and reducing intestinal yeast carriage. Furthermore, patients appear to prefer the oral and shorter regime. A single day regimen of oral antifungal is likely to result in good compliance. Single day treatment has also the advantages of safety and low incidence of side effects compared to that of longer treatment schedules.

REFERENCES