

Treatment of Vaginal Candidiasis (Progress in Antifungal Therapy)

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Abstrak

Vulvovaginitis oleh *Candida spesies* merupakan infeksi saluran genital bawah yang sering terjadi. Penyakit ini memberikan keluhan pada para penderita, walaupun oleh dokter dianggap penyakit yang tidak berarti. Keluhan penderita adalah gatal, rasa panas, disuri dan dispareni. Disebabkan faktor predisposisi dan pencetus, rekurensi penyakit sering terjadi. Penyebab utama adalah jamur *Candida albicans* (lebih dari 80%). Jamur ini biasanya dapat diisolasi dari feses, vagina dan kerongkongan pada individu yang nampak sehat. Penatalaksanaan penyakit yang biasanya kurang menyenangkan penderita terdiri atas: 1. mencari dan menemukan faktor predisposisi dan pencetus; 2. memberikan pada penderita obat antifungal; 3. mendidik penderita dan nasehat mengenai pengobatan sendiri pada penderita merupakan pelengkap pengobatan medisinal. Obat antifungi yang digunakan untuk pengobatan candidosis vaginal terdiri atas obat topikal maupun oral dengan golongan polyene atau triazole. Pengobatan antifungal topikal berlangsung 1-14 hari dengan hasil yang baik sekali, namun kepatuhan penderita sangat kurang. Relaps sering dilihat memberi kesan sembuh setelah pengobatan. Obat triazole baru yang aman diberikan sehari peroral merupakan kemajuan untuk mengatasi keterbatasan pengobatan antifungal topikal.

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 dysparenia. 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 candidiasis 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 vulvovaginitis 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 dysparenia. 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 premenstrual 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, dysparenia 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 erythematous 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*.^{6,7} Since many women carry *Candida* species, especially *Candida Albicans* in their gastrointestinal tracts and vagina without symptoms (colonization), there must 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 Sobel⁶).

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

- Antibiotics usage esp. prolonged use and broad spectrums
- Endogenous/exogenous hormones eg. oestrogen / corticosteroid
- Pregnancy
- Immunosuppression or acquired antigen - specific immunodeficiency
- Uncontrolled diabetes mellitus
- Poor hygiene
- Extragenital 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.⁶

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, saperconazole is undergoing clinical evaluation. Early reports showed promising results, safe and well tolerated.⁹ 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

Drug	Formulation	Dosage
Nystatin	100000 unit VAG tablet	1 tablet at bedtime 14 days
Miconazole	2 % gynocream	5 g at bedtime 7 days
Clotrimazole	1 % gynocream 500 mg vaginal tablet	5 g at bedtime 7-14 days 1 tablet at bedtime
Econazole	150 mg vaginal tablet	1 tablet at bedtime
Isoconazole	300 mg vaginal tablet	2 tablet at bedtime once
Fenticonazole	2 % gynocream	5 g at bedtime 7 days
Tioconazole	2 % gynocream 6.5 % gynocream	5 g at bedtime 3 days 5 g at bedtime once
Terconazole	2 % gynocream	5 g at bedtime 3 days
Butoconazole	2 % gynocream	5 g at bedtime once 3 days
Ketoconazole	200 mg oral tablet	400 mg daily 5 days
Fluconazole	150 mg capsule	1 capsules once
Itraconazole	100 mg granules in capsule	200 mg bid one day
Saperconazole		200 mg daily 2 days 200 mg bid one day

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.^{7,10,11}

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.^{12,13} 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 route. 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.

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CLINICAL CORRELATION

Acute pruritis and vaginal discharge are the usual features of acute vulvovaginitis. The discharge is usually profuse and watery, and is often associated with a burning or stinging sensation. The condition is chronic and recurrent, and is often associated with marital problems, as well as marital embarrassment, as well as marital problems, as well as marital embarrassment.

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

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100 mg granules
200 mg bid one day
in capsule

200 mg daily

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