National Guideline on the Management of Vulvovaginal Candidiasis

Clinical Effectiveness Group (Association for Genitourinary Medicine and the Medical Society for the Study of Venereal Diseases)

Causative Agent(s)
Candida albicans 80-92%
Non-*albicans species* e.g. *C. glabrata*

Clinical Features
The clinical symptoms caused by *albicans* and non-*albicans species* are indistinguishable.

Symptoms
Vulval itching
Vulval soreness
Vaginal discharge
Superficial dyspareunia
External dysuria

Signs
Erythema
Fissuring
Discharge, may be curdy (non-offensive)
Satellite lesions
Oedema

None of these symptoms or signs is specific for the diagnosis of candidiasis[1]. Candidiasis is often diagnosed on the basis of clinical features alone and as many as half of these women may have other conditions eg allergic reactions. (Level of evidence:II. *Grade* A[2]).

NB. 10-20% women during reproductive years may harbour *Candida species* in the absence of symptoms. These women do not require treatment.

Diagnosis

Clinical
Symptoms/signs non-specific (see above)

Investigations
pH of vaginal fluid 4.0-4.5 (pH >5 suspect bacterial vaginosis/trichomoniasis)

Microscopy
Gram stain of vaginal discharge collected from anterior fornix or lateral vaginal wall looking for spores/pseudohyphae
May detect 65-*68*% of symptomatic cases[3,4]

Saline microscopy of vaginal discharge collected from anterior fornix or lateral vaginal wall looking for pseudohyphae
Sensitivity 40-60%[5]

10% potassium hydroxide (KOH) microscopy of vaginal discharge collected from anterior fornix or lateral vaginal wall looking for pseudohyphae
Sensitivity 70%[5]
NB KOH is toxic to *T.vaginalis*.

Latex agglutination slide technique of vaginal discharge collected from anterior fornix or lateral vaginal wall using polyclonal antibodies against *Candida species*. This confers no benefit over microscopy.

Culture
Sabouraud's media
This should be considered in all symptomatic cases where microscopy is inconclusive or identification of the species would be helpful eg multiple previous treatments, concern re speciation. Level of evidence:IV. *Grade C*[5]

Management

General advice
Avoid local irritants e.g. perfumed products
Avoid tight fitting synthetic clothing
Level of evidence:IV. *Grade C*

Treatment
All topical and oral azole therapies give an 80-95% clinical and mycological cure rate in acute vulvo-vaginal candidiasis in non-pregnant women. Nystatin preparations give a 70-90% cure rate under these circumstances. Level of evidence:II. *Grade A*[6]

Topical Therapies

DRUG	FORMULATION	DOSAGE REGIMEN
Clotrimazole*	Pessary	500mg stat
Clotrimazole*	Pessary	200mg x 3 nights
Clotrimazole*	Pessary	100mg x 6 nights
Clotrimazole*	Vaginal cream (10%)	5g stat
Econazole**	Pessary (Ecostatin 1)	150mg stat
Econazole**	Pessary	150mg x 3 nights
Fenticonazole**	Pessary	600mg stat
Fenticonazole**	Pessary	200mg x 3 nights
Isoconazole*	Vaginal tablet	300mg x 2 stat
Miconazole**	Ovule	1.2g stat
Miconazole**	Pessary	100mg x 14 nights
Nystatin	Vaginal cream (100,000 units)	4g x 14 nights
Nystatin	Pessary (100,000 units)	1-2 x 14 nights

NB * Effect on latex condoms and diaphragms not known
** Product damages latex condoms and diaphragms

Oral Therapies

DRUG	FORMULATION	DOSAGE REGIMEN
Fluconazole	Capsule	150mg stat
Itraconazole	Capsule	200mg bd x 1d

NB Avoid in pregnancy/risk of pregnancy and breast feeding
See BNF

Level of evidence: II, Grade A[6,7,8]

Pregnancy
Asymptomatic colonisation with *Candida species* is higher in pregnancy (30-40%).
Symptomatic candidosis is more prevalent throughout pregnancy.
Treatment with topical azoles is recommended. Longer courses may be necessary.
Oral therapy is contraindicated. Level of evidence:II. Grade B[7,10]

Sexual Partner(s)
There is no evidence to support treatment of asymptomatic male sexual partners.
Level of evidence:I. Grade A[11]

Follow Up
Unnecessary if symptoms resolve. Test of cure is unnecessary.

Recurrent Candidosis

Definition
Four or more episodes of symptomatic candidosis annually[9].

Prevalence
<5% of healthy women of reproductive years.

Pathogenesis
Poorly understood
Exclude diabetes *mellitus*
Association with recent cunnilingus[12]
Other risk factors include underlying immunodeficiency, corticosteroid use, frequent antibiotic use

Treatment
Regimens in current usage are empirical and are not based on randomised controlled trials. Principles of therapy include induction followed by a maintenance regime for 6 months. Cessation of therapy may result in relapse in at least 50% of women.

Regimes
Fluconazole 100mg weekly x 6 months

Clotrimazole pessary 500mg weekly x 6 months

Itraconazole 400mg monthly x 6 months
[Ketoconazole 100mg daily x 6 months
NB: Low risk of idiosyncratic drug induced hepatitis. Monitor LFT's monthly].

Level of evidence:II. Grade B[5,6,9,13]

Caution: Anecdotal reports of oral contraceptive failure with prolonged oral azole therapy

Auditable Outcome Measures

- Offer microscopy/culture to all women with symptoms suggestive of vulvo-vaginal candidiasis. Target - 100%.

- Initial diagnosis by microscopy of symptomatic culture proven vulvo-vaginal candidiasis in non-pregnant women. Target - 50-60%.

- Cheapest acceptable topical/oral treatment option to be used in non-pregnant women. Target - 80%.

- Asymptomatic male partners should not be treated. Target - 100%.

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Conflict of Interest

None

Evidence Base

MEDLINE search-keywords:-vulvo-vaginal candidiasis, vaginal candidosis (1980-*2000*) English language only

COCHRANE LIBRARY search-keywords:-vulvo-vaginal candidiasis, vaginal candidosis (*2000*)

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