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Clinical Assessment of Genital Candidiasis in a Rural Population Attending a Std Clinic In Central India.

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ABSTRACT

Genital candidiasis is a common problem encountered in Sexually Transmitted Clinics (STD Clinics). In this rural based hospital we undertook the study to assess the prevalence of genital candidiasis in the STD clinic attendees of our hospital. The study was conducted in the STD Clinic of Dermatology out patients department of Mahatma Gandhi Institute of Medical Sciences, Sewagram, Maharashtra. There were a total of 1028 attendees in the STD clinic who were clinically assessed for signs and symptoms of candidiasis and were investigated accordingly, to confirm the diagnosis. It was found that the prevalence of genital candidiasis in a rural set up like ours was 5.44% amongst the total number of STD patients.

KEYWORDS: genital candidiasis, STD, white discharge.

INTRODUCTION

Candidiasis is an inflammation of the mucocutaneous surface caused by the yeast Candida albicans (most commonly) or one of the other Candida species like Candida glabrata ,Candida parapsilosis ,Candida tropicalis etc. (1). Prevalence of symptomatic vulvovaginal candidiasis among the patients is around 8% and vaginal carriers of the yeast are encountered in as often as 27% of the cases (2). Approximately three fourth of all women will experience an episode of vulvovaginal candidiasis in their life time (3). Although it is both treatable and mild, when left untreated, it is a possible risk factor for acquisition of HIV/AIDS as well as other complications (4). Vulvovaginal candidiasis is common in the young adults of age range 21-30 years, pregnant mothers, immune-suppressed, contraceptive and broad spectrum antibiotic users. (4) Vaginal candidiasis (commonly called as genital thrush, Tobin 1995), manifests itself as odourless, curdy white discharge ("cotton cheese") in the female lower reproductive tracts presenting with pruritus, irritation, dysuria or dyspareunia (4). New onset or recurrent vaginal candidiasis might identify HIV infected individuals and predict the course of AIDS in women already known to be infected (5). Also, Candida species have been found to be the most common cause of Balanoposthitis in males (Vladimir O Osipov et al 2009).

In our Institute which also serves as the main centre for skin and sexually transmitted diseases in the rural area of Vidarbha, the incidence of genital candidiasis in 2010 was 3% among the total OPD attendance. Due to recent downfall in the agricultural economy in this area, there is an increase in the suicide rate in this area. Also, there has been an increase in the migration among the population which had lead to a rise in the sexually transmitted infections. Candidiasis, which also accounts for an important sexually transmitted disease also helps in the spread of other sexually transmitted infections including HIV.

There are many risk factors for the development of genital candidiasis like advanced reproductive age, pregnancy, diabetes mellitus, iron deficiency anaemia, hormonal contraception, recent antibiotic use, dietary practice, gastrointestinal colonization by the organism, clothing and sanitary protection practices, sexual communicability of the organism, hormonal contraception, steroid therapy, technique of vulvovaginal hygiene and specific immunological defects (6).

OBJECTIVES:

The study has been done to identify the risk factors for genital candidiasis in a rural population attending an STD Clinic in Central India.

MATERIALS AND METHODS:

It was a cross sectional descriptive study conducted in the Sexually Transmitted Clinic (STD Clinic) of Skin Out Patients Department (OPD) of Mahatma Gandhi Institute of Medical Sciences, Sewagram, Maharashtra on 1028 STD Clinic attendees, spanned over a period of 11 months from January to November 2010. The patients were appropriately counselled prior to their enrolment in the study. All chosen patients were above 13 years of age, and they were clinically assessed for genital candidiasis and were subjected to genital swab examination from the site of the lesion, along with fungal culture in doubtful cases. High vaginal swabs were taken in case of female patients and sub-preputial and glans swabs were taken in case of males. The swabs were microscopically analysed by preparing a 10% KOH mount which revealed buds and candidial pseudohyphae. Besides this, the patients were also assessed for anaemia by doing their routine complete blood cell counts. Suspected patients were also subjected to pre and post prandial blood sugars. In case the patient presented with signs and symptoms suggestive of any other sexually transmitted disease, appropriate investigations were carried out for example, ELISA for HIV, VDRL for Syphilis, Wet mount for Trichomoniasis etc. to rule out the same. Hypertensive and diabetic patients were excluded from the study.

RESULTS:

A total of 1028 patients above 13 years of age were assessed for genital candidiasis, out of which 56 patients; 49 males and 7 females were found to have the disease. The figures for urban and rural distribution of the cases were 16 and 40 respectively. These figures however imply strictly to a zonal distribution as our study was conducted in a rural hospital where most of the patients visiting the STD Clinic were amongst the rural masses. The patients were treated with oral antifungal agents, most commonly with fluconazole given in a stat dose of 150 mg.

DISCUSSION:

Vaginal candidiasis continues to be the most common cause of vaginal discharge (7).Host factors play a significant role in the occurrence of candidial infection (8).Candida albicans usually lives in the vaginal atmosphere because of the acidic pH there. As a matter of fact, true house of the candidia is the small intestine mucous, vaginal area could be considered as the beach house, skin localization (presence of fungal spots if exposed to the sun) could represent the mountain house and thrush in the mouth could be the lake house. (Enzo DI Maio). It is normally kept under control by harmless bacteria in these sites. Interestingly, recent research suggests that symptomatic candidiasis is due to an exaggerated immune response to the presence of Candida, rather than a failure of immune mechanisms (9). There has been a rise in candidial infection and it is now known to be one of the common causes of nosocomial infections (10). In the female genital area, an excessive candida proliferation causes white leaks (similar to cotton cheese),

burning after urination along with redness. In the male genitalia on the other hand, it causes penile inflammation along with multiple, tiny, erythematous spots which may be velvety or shiny causing significant burning sensation and itching. (Enzo DI Maio).

Various risk factors have been implicated on the part of the affected host for recurrence of vulvovaginal candidiasis like hormonal factors which include pregnancy, estrogens, corticosteroids, oral contraceptives; local factors like tight fitting and synthetic clothing, allergy to commercial douches and perfumes; immunological factors like HIV infection/AIDS, other immunological deficiencies besides diabetic mellitus and antibiotics (11) Candida albicans was isolated from 21% of cases of balanoposthitis in a study conducted by Bhargava RK et al (12). Candidial balanoposthitis is often diagnosed on clinical appearance alone, however the diagnostic accuracy demands the use of genital swabs and culture. The sensitivity of swab method largely depends on the method employed for the sample collection; the adhesive tape method being more sensitive than the plain slide method; sensitivity of each being 12% and 65% respectively (13-14)

Thrush is not viewed as a sexually transmitted infection hence patient's partner is not tested or treated unless he or she also presents with symptoms but we strongly believe that patient's partner should be also evaluated for any evidence of the disease. Another aspect that needs attention is the fact that not all cases of genital candidiasis respond to short course of antifungal agents; one in five women for example will complain of either treatment failure or relapse of symptoms. Thus treatment failure is to be considered in case patient is not relived of his symptoms even after 7 -14 days of treatment as suggested by Roger Henderson in his updates on vaginal candidiasis in 2007.

In conclusion we would like to mention that the prevalence of candidiasis has been found to be significantly high in STD Clinic attendees, thus a thorough knowledge of its symptoms, course and risk factors holds utmost importance in any clinical set up. As with our study, we found the prevalence of genital candidiasis to be 5.44%. This however solely depicts the proportion amongst a small sect of the population and may not be a true predictor of the disease since our study restricted to the population registered under the STD Clinic after being referred from the Skin OPD of our Institute.

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