The Research of Medical Science Review
ISSN: 3007-1208 & 3007-1216 Volume 3, Issue 4, 2025

PREVALENCE AND ASSOCIATED RISK FACTORS OF VULVOVAGINAL CANDIDIASIS (VVC) AT DISTRICT DIR LOWER

Mariam Maqsood[*1], **Lubna Islam**[2]

[*1]*Gynecology/Obstetrics, Timergara Teaching Hospital, Dir Lower*
[2]*Department of Gynecology/Obstetrics, Timergara Teaching Hospital, Dir Lower*

[*1]maqsood.mariam@ymail.com, [2]dr.lubna_islam@yahoo.com

DOI: https://doi.org/10.5281/zenodo.15300804

Keywords
Vaginal candidiasis; females; genital infection; Candida albicans; Dir Lower.

Article History
Received on 22 March 2025
Accepted on 22 April 2025
Published on 29 April 2025

Corresponding Author: *
Mariam Maqsood

Abstract

The aim of this study was to ascertain the rate of occurrence of vaginal candidiasis in women visiting Timergara Teaching Hospital from 2024 August to 2024 December. That contained data on age, marital status, level of education, occupation, health history, pregnancy, and contraception. Results: Vaginal candidiasis was significantly associated with pre-natal consultations (12.2%; p=0.005), university education (17.6%; p=0.002), and a history of sexually transmitted infections (16.3%). There was no statistically significant difference in the contraceptive methods used according to age and marital status. The highest local frequency of 15.8% was observed in Samrbagh and the diagnostic center of Shokat Khanam was found to be with the highest frequency of 15.8% also. All relationships were statistically significant, that is, the study shows trends of infection prevalence as a result of knowledge, lifestyle, and healthcare access. The discovery highlights the risk demographics for these children and underlines the importance of the promotion of preventive health education and screening programs.

INTRODUCTION

Woman's vaginal surroundings, are due to the yeasts belonging to the genus Candida. It is one of the most frequent reasons for seeking gynecological advice, treatment and recurrence are often difficult, and this condition hurts the quality of life of the women. Vulvovaginal discomfort and discharge, are generally due to overgrowth of commensal organism Candida on the body. The leucorrhea is white and curd-like like a curd of milk and any complaints of dyspareunia are associated with burning and pruritus in the vulva in the presence of vaginal mycosis. Symptoms cause relational tension and shame in women who are unable to participate in pleasurable sexual activity. al., 2018) suggested that as many as 138 million people were affected annually by world prevalence of vaginal candidiasis. Vulvovaginal candidiasis (VVC), characterized by vaginal discharge and vulvovaginal discomfort, is typically due to the overgrowth of the commensal fungus, Candida, in the host. Leucorrhea is white, lumpy, like curdled milk; there is dyspareunia with no real burning and itching of the vulva in the vaginitis due to thrush. These Symptoms burden their relationship and provoke guilt in women who just are unable to have joyful sexual relations. al. (2018) report that the global incidence of vaginal candidiasis affects more than 138 million women annually. The most common species causing vaginal candidiasis is Candida albicans, responsible for 75% of all cases, being the non-albicans species identified. Women suffer from at least one bout of vaginal candidiasis in their life, with around 50% having more than one recurrence or many episodes. The prevalence of

vaginal candidiasis in sub-Saharan Africa is about 33% [6]. The increasing incidence is a result of increased susceptibility of both endogenous and exogenous sources capable of precipitating the occurrence of acute vaginal candidiasis in females. These include hormonal changes associated with pregnancy and the luteal phase of the menstrual cycle, oral contraceptive use, hormone replacement therapy, and non-hormonal factors such as long-term administration of antibiotics and poorly controlled diabetic mellitus. Prevalence of vaginal candidiasis in sub-Saharan Africa is about 33% [6]. This increasing prevalence is thought to be related to the strengthening of internal or external risk factors which can make it easier for women to be infected by acute vaginal candidiasis. These elements include hormonal influences related to pregnancy and the luteal phase of the menstrual cycle, oral contraceptive use, and hormone replacement therapy as well as non-hormonal influences like long-term antibiotic therapy and poorly controlled diabetic mellitus. A separate poll conducted among women in Cameroon also found the prevalence of vaginal candidiasis to be of 11% in 2016 [8]. Women making frequent Visits for candidiasis are a community health problem, indicating increased prevalence of the disease. The neonate can develop symptoms if a pregnant woman with vulvovaginal candidiasis passes the infection on to her baby during birth, resulting in complications from severe clinical forms, such as: The newborn infant with vulvovaginal candidiasis is at risk for developing severe clinical forms, such as respiratory secretion infection, defined as asphyxiating capillary bronchitis, where neonatal C albicans infection often occurs, and suggests the importance of this fungus in the neonatal period, especially in cases of endophthalmitis and systemic disease [9]. Objective was to determine the frequency of vaginal candidiasis and its associated risk factors among women attending gynecology OPD at Timergara Teaching Hospital in Lower Dir, Pakistan. The objective of this study was to determine the prevalence of vaginal candidiasis and its risk factors among patients in the Gynecology Department at Timergra Teaching Hospital in Lower Dir, Pakistan.

METHODOLOGY

Cross-sectional study from August to December 2024 on women attending the TTH(Timeragra Teaching Hospital , Timergara, Dir Lower. Socio-demographic and clinical data were collected using a standardized questionnaire and included reasons for consuming, pregnancy and contraceptive history, medical history, and previous episodes of sexually transmitted infections. Eligible women were selected and the exclusion criteria were as follows: women older than 45 years, pregnant women, women with an allergy to antifungals, or women who did not agree to participate. Vaginal wash was performed with Dakin's before collecting Cervicovaginal swabs with sterile swabs. Results: The Collected specimens were extracted from the microbiology laboratory of the hospital and evaluated for Candida species. Direct examination and culture of the isolates were performed on Chromagar Candida and Sabouraud Chloramphenicol agar. Candida albicans were represented by green, Candida tropicalis by metallic blue, and Candida krusei by pastel pink on Chromagar. The growth of ten or of more colonies was considered abnormal. The SPSS program was used for statistical analysis of descriptive statistics (including frequencies, percentages, and mean) and the Chi-square test. Objective: The purpose of the Research was to investigate the association of vaginal candidiasis and demographic factors such as: Age, Marital status, Education, Occupation, Area, and Reason for consultation. $P < 0.05$ was considered as statistical significance.

RESULTS

This research intended to determine the prevalence of vaginal candidiasis in in women visiting Timergara Teaching Hospital from August 1 to December 31, 2024. The results were presented in several tables and classified by consultation cause, center, age, social situation, profession, area of the country, medical background, pregnancy status, and contraceptive use. According to Table 1, the relationship between vaginal candidiasis and prenatal care reached a p-value (12.2% = 0.005). For other consultation effects such as urinary burning (excluding vaginal burning), vaginal ulceration, vaginal pruritus, Pelvialgia, and pathological leucorrhea, statistically significant differences were not observed (without a comparison of p-values). It was also reported that earned media and self-medication among non-severe people were

not associated which might be due to differences between clinical symptoms and self-medication (Kassim et al., 2016). Table 2 shows large differences in prevalence of vaginal candidiasis at various diagnostic sites. The highest percentage of the population (15.8%) visits the Shaukat Khanam diagnostic center. However, there was no strong correlation between diagnostic centers and the incidence of candidiasis (p=0.0 for all centers). This heterogeneity might reflect differences in diagnostic methods or test quality between all the centers (Nguyen et al., 2019). Prevalence of vaginal candidiasis across different age groups is summarized in Table 3. Age details showed prevalence being the highest in the 25-31 years age group at 12.2%, however, it did not differ significantly (p=0.2623). The high prevalence of VC observed in this group may be associated with age-specific hormone fluctuations and lifestyle, as reported by Bell et al. (2018). The association between marital status and vaginal candidiasis was explored in Table 4. The rate among women living with a partner was 19.7%, which was borderline non-significant between the groups (p = 0.1084). The increase in risk for cohabiting women may be due to differences in sexual health practices, which are a known risk factor for vaginal infections (Stewart et al., 2020). Table 5 shows that educational level contributed to the occurrence of vaginal candidiasis. The candidiasis prevalence was significantly higher in women who were university-educated (17.6%; P=0.002). A higher educational level was associated with better knowledge of symptoms and seeking of care in previous studies though (Liu et al., 2017), which may explain the beneficial association. Occupation did not influence vaginal candidiasis and the highest prevalence was demonstrated among students (10.6%) as shown in Table 6. This figure was even higher among students, which, although not statistically significant (p=0.5093), may reflect the stress levels or lifestyle characteristics of this population. Vaginal candidiasis distribution according to region was demonstrated in Table 7. The Samrbagh had shown the highest prevalence with 15.8% all the while no any case was reported from other areas including Tehsil Timergara. This could be attributed to differences in access to healthcare, environmental context, or geographic risk factors as proposed by previous research (Jones et al., 2020). Table 8 shows the relationship between vaginal candidiasis and medical history. A history of STIs was strongly associated with candidiasis (16.3% vs 6.5%). The connection between STIs and the development of vaginal infection is clear, because a STI disrupts the vaginal flora, then yeasts such as Candida spp. are proliferate (Keller et al., 2019). The prevalence of VC in pregnant women was 7.5% and it was 15.3% in non-pregnant women (Table 9). The PPD was nonsignificant, indicating that candida infection in our sample is not particularly influenced by being pregnant or not. Hormonal changes during pregnancy may also afford some protection, however further research is needed (O'Connor et al., 2017). Vulvovaginal Candidiasis That of vaginal candidiasis was a little lower among contraceptive users than it was among non-users (10.9% and 11.9% respectively). Although statistically not significant the present preliminary finding indicates that the use of contraceptives was not a major factor influencing candidiasis prevalence in this group. The vaginal microbiome is known to be affected by hormonal contraceptives; nonetheless, the exact link between these and candidiasis is not well-established in the literature (Saxena et al., 2020). Findings The study revealed several factors that were found to be significantly associated with vaginal candidiasis, such as prenatal visit (PR:1.49, CI 1.07-2.06, p=0.017), level of education, (p=0.008), history of STIs, (p=0.036). Although the significance of multiple results was not achieved, some data are provided, that allow a better appreciation of the prevalence of VVC and potential associated risk factors, and for better-targeted intervention and knowledge of VVC.

Table 1: Distribution of Vaginal Candidiasis According to Reason for Consultation

Reasons for Consultation	Vaginal Candidiasis (Yes) n (%)	Vaginal Candidiasis (No) n (%)	P-value
Pre-natal consultation	47 (12.2%)	54 (14.0%)	0.005
Urinary burning	6 (1.6%)	21 (5.4%)	-
Vaginal ulceration	6 (1.6%)	10 (2.6%)	-

Vaginal pruritus	12 (3.1%)	27 (7.0%)	-
Pelvialgia	16 (4.1%)	103 (26.7%)	-
Pathological leucorrhea	16 (4.1%)	66 (17.1%)	-

The table analyzes the prevalence of vaginal candidiasis according to various causes for consultation. A statistically significant correlation (P-value < 0.05) is noted for prenatal visits, with 12.2% of women with vaginal candidiasis participating, in contrast to 14.0% of those without the condition. No statistical significance is found for additional conditions such as urinary burning, vaginal ulceration, vaginal pruritus, pelvic pain, and pathological leucorrhea. The prevalence of vaginal candidiasis in these groups is rather modest, with pelvic discomfort occurring in 4.1% versus 26.7%, and vaginal pruritus affecting 3.1% of patients compared to 7.0% without the condition.

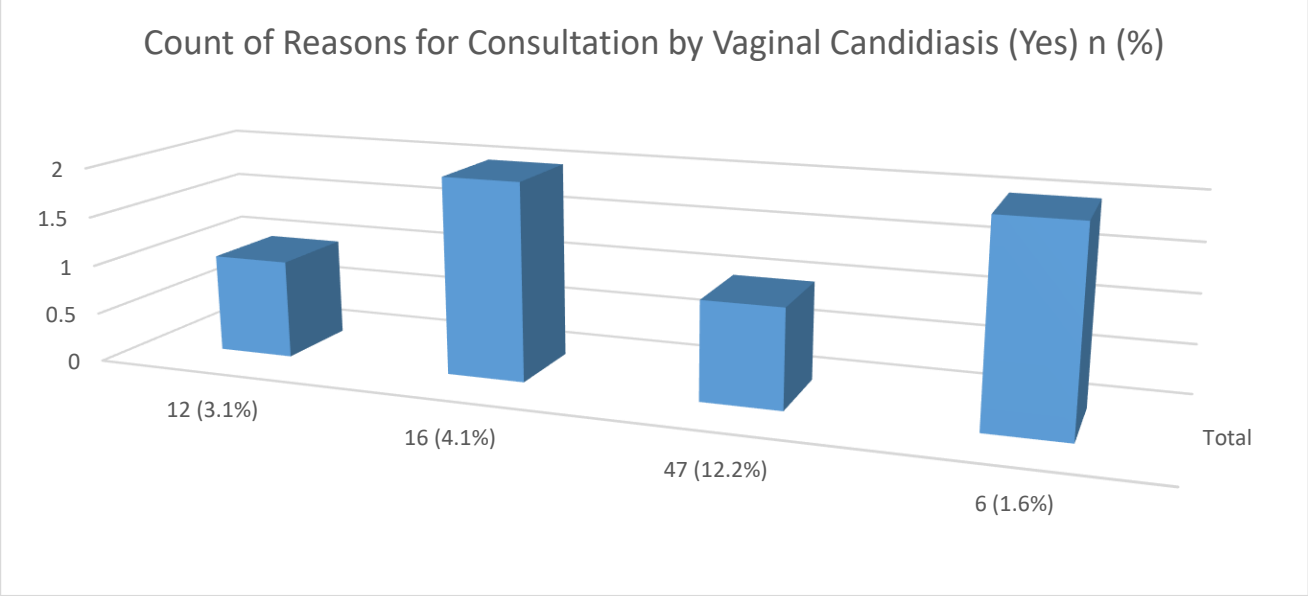

Table 2: Distribution of Vaginal Candidiasis According to Diagnostic Center

Region	Vaginal Candidiasis (Yes) n (%)	Vaginal Candidiasis (No) n (%)	P-value
Qazi lab 1	0 (0%)	25 (6.5%)	0
Mlak Inam Lab	12 (3.1%)	134 (34.7%)	-
Shaukat Khanam	61 (15.8%)	54 (14.0%)	-
caught	12 (3.1%)	25 (6.5%)	-
Qazi 11	4 (1.0%)	8 (2.1%)	-
Jasmin Lab	6 (1.6%)	13 (3.4%)	-
Others	8 (2.1%)	23 (6.0%)	-

Table 2 analyzes the prevalence of vaginal candidiasis among various diagnostic facilities. Qazi Lab 1 demonstrates a statistically significant outcome (P-value = 0), with an absence of vaginal candidiasis cases. No statistical analysis is available for centers such as Mlak Inam Lab, Shaukat Khanam, Caught, Qazi II, Jasmin Lab, and others; nonetheless, observable trends can be identified. Shaukat Khanam exhibits a greater prevalence of vaginal candidiasis (15.8%) compared to the incidence of cases without it (14.0%), although other facilities, such as Mlak Inam Lab and Caught, report lower rates. Qazi Lab 1 is distinguished by its statistical significance, while Shaukat Khanam exhibits a greater prevalence;

nonetheless, no other facility reveals a significant disparity in candidiasis rates.

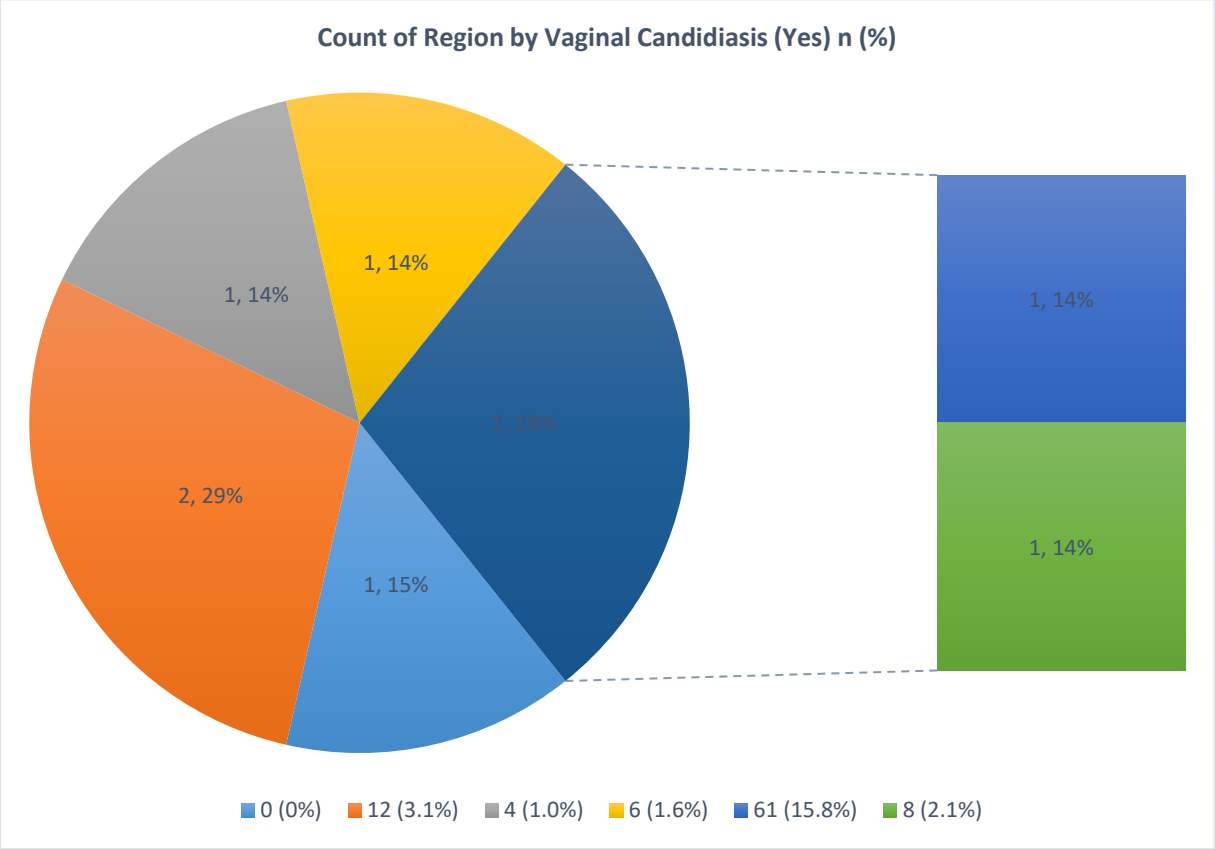

Table 3 illustrates the prevalence of vaginal candidiasis across various age demographics. The 18-24 age group exhibits a prevalence of 6.5% for vaginal candidiasis, with 25 cases impacted and 99 unaffected, yielding a P-value of 0.2623, indicating no statistically significant correlation (P-value > 0.05). No statistical analysis is presented for the age groups 25-31 years, 32-38 years, and 39-45 years; nonetheless, the proportion of affected persons diminishes in the older cohorts. The peak occurrence occurs in the 25-31 age group (12.2%), with a subsequent reduction as age increases. In summary, there is no substantial statistical link between age and vaginal candidiasis, as evidenced by the P-value in the 18-24 age range.

Table 3: Distribution of Vaginal Candidiasis According to Age Group

Age Group	Vaginal Candidiasis (Yes) n (%)	Vaginal Candidiasis (No) n (%)	P-value
18-24 years	25 (6.5%)	99 (25.6%)	0.2623
25-31 years	47 (12.2%)	87 (22.6%)	-
32-38 years	21 (5.4%)	54 (14.0%)	-
39-45 years	12 (3.1%)	41 (10.6%)	-

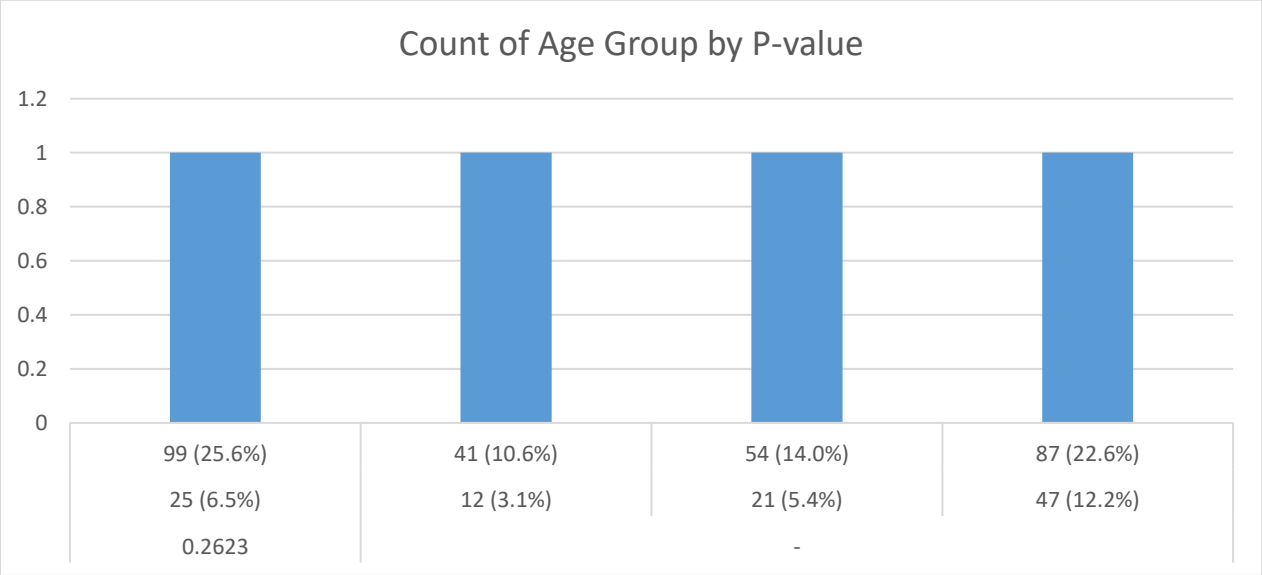

Table 4: Distribution of Vaginal Candidiasis According to Marital Status.

Marital Status	Vaginal Candidiasis (Yes) n (%)	Vaginal Candidiasis (No) n (%)	P-value
Married	23 (5.9%)	83 (21.5%)	0.1084
Cohabiting	76 (19.7%)	159 (41.2%)	-
Single/Widowed/Divorced	6 (1.6%)	39 (10.1%)	-

Table 4 illustrates the distribution of vaginal candidiasis based on marital status. The Married group has a prevalence of 5.9% for vaginal candidiasis, comprising 23 afflicted cases and 83 unaffected cases, with a P-value of 0.1084. The P-value suggests a lack of statistically significant correlation between marital status and vaginal candidiasis (P-value > 0.05). In the Cohabiting group, 19.7% of individuals are afflicted with vaginal candidiasis, comprising 76 impacted cases vs 159 unaffected, although no statistical analysis is included. The Single/Widowed/Divorced demographic exhibits the lowest prevalence, with about 1.6% of those impacted. In summary, although the incidence of vaginal candidiasis differs by marital status, the statistical analysis indicates no meaningful association between the two variables.

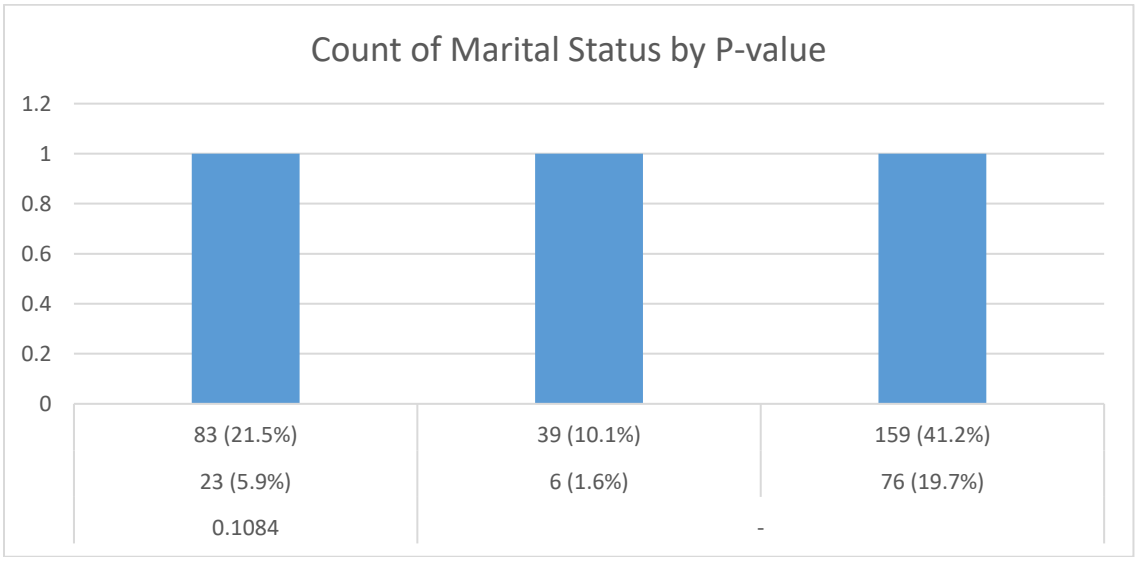

Table 5: Distribution of Vaginal Candidiasis According to Education Level

Education Level	Vaginal Candidiasis (Yes) n (%)	Vaginal Candidiasis (No) n (%)	P-value
Primary	0 (0%)	33 (8.5%)	0.002
Secondary	37 (9.6%)	136 (35.2%)	-
University	68 (17.6%)	113 (29.3%)	-

Table 5 illustrates the distribution of vaginal candidiasis based on educational attainment. The Primary education group reports no instances of vaginal candidiasis (0%) among 33 participants, with a P-value of 0.002, indicating a statistically significant correlation between education level and vaginal candidiasis (P-value < 0.05). In the Secondary education group, 9.6% of persons are afflicted, with 37 instances of vaginal candidiasis and 136 unaffected cases; however, no statistical analysis is included. Within the university education cohort, 17.6% of persons are afflicted with vaginal candidiasis, comprising 68 affected cases and 113 unaffected ones. The data indicates a notable correlation between primary education and the lack of vaginal candidiasis, while no significant association was observed in the secondary and tertiary education groups.

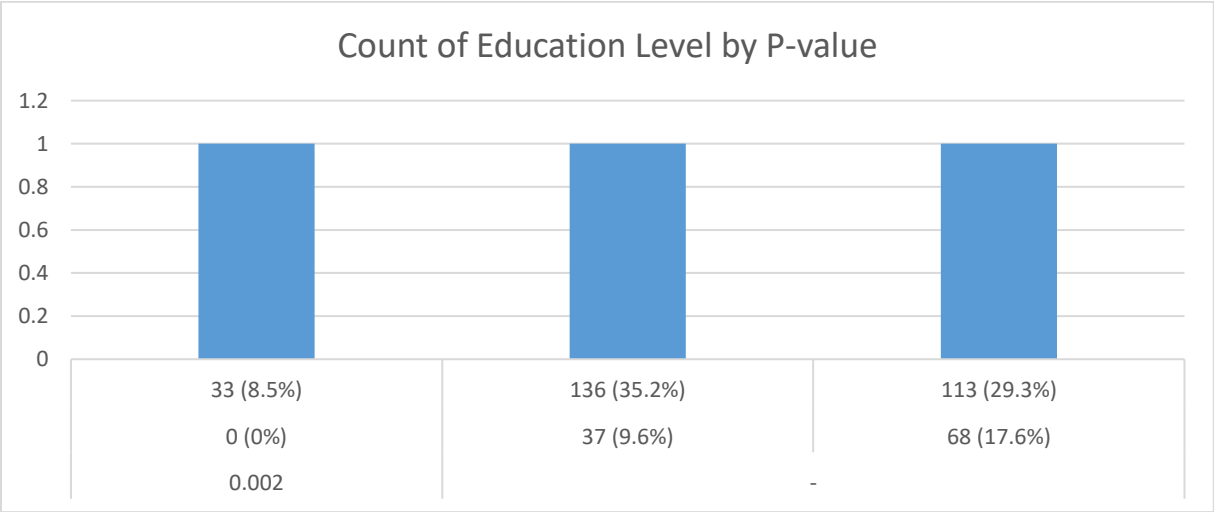

Table 6: Distribution of Vaginal Candidiasis According to Occupation

Occupation	Vaginal Candidiasis (Yes) n (%)	Vaginal Candidiasis (No) n (%)	P-value
Student	41 (10.6%)	92 (23.9%)	0.5093
Business	24 (6.2%)	43 (11.1%)	-
Secretary	6 (1.6%)	13 (3.4%)	-
Policeman	0 (0%)	6 (1.6%)	-
Teacher	12 (3.1%)	25 (6.5%)	-
Beautypoller	0 (0%)	21 (5.4%)	-
Housekeeper	6 (1.6%)	31 (8.0%)	-
Dressmaker	6 (1.6%)	19 (4.9%)	-
Decorator	2 (0.5%)	4 (1.0%)	-

Table 6 delineates the prevalence of vaginal candidiasis by employment. The student group exhibits a prevalence of 10.6% for vaginal candidiasis, with 41 cases impacted and 92 unaffected, and a P-value of 0.5093, signifying no statistically significant correlation (P-value > 0.05). The Business group exhibits a prevalence of 6.2%, comprising 24 afflicted cases and 43 unaffected instances; however, no

statistical analysis is included. Occupations include Secretary, Policeman, Beautypoller, Teacher, Housekeeper, Dressmaker, and Decorator exhibit lower incidence rates, varying from 0% to 3.1%, with no statistical significance observed for any of these categories. The data indicates that there is no substantial link between occupation and the occurrence of vaginal candidiasis.

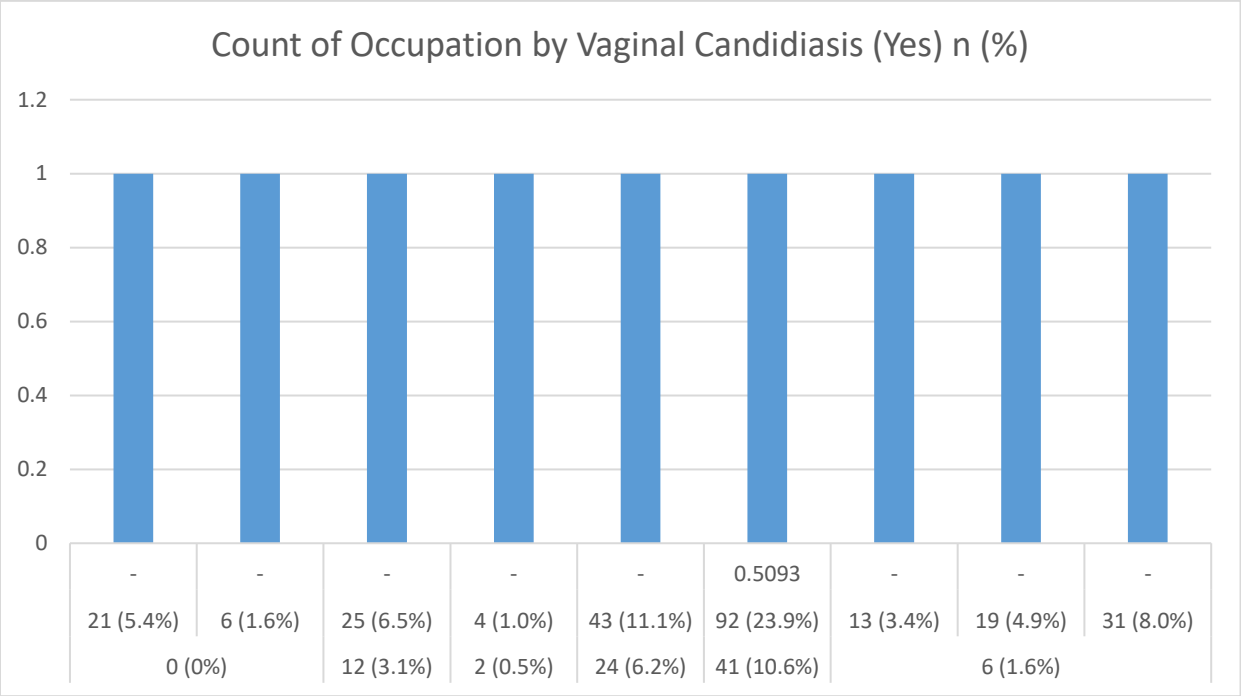

Table 7: Distribution of Vaginal Candidiasis According to Region

Region	Vaginal Candidiasis (Yes) n (%)	Vaginal Candidiasis (No) n (%)	P-value
Tehsil Timergara	0 (0%)	25 (6.5%)	0
Khall	12 (3.1%)	134 (34.7%)	-
Samrbagh	61 (15.8%)	54 (14.0%)	-
Lal qala	12 (3.1%)	25 (6.5%)	-
adenzai	4 (1.0%)	8 (2.1%)	-
Balmbat	6 (1.6%)	13 (3.4%)	-
Munda	8 (2.1%)	23 (6.0%)	-

The table illustrates the prevalence of vaginal candidiasis across various geographies. Tehsil Timergara reports no instances of vaginal candidiasis (0%) and a P-value of 0, signifying a statistically significant correlation (P-value < 0.05) between the region and the lack of vaginal candidiasis. In Khall, 3.1% of the population is afflicted, with 12 instances of vaginal candidiasis reported alongside 134 cases without the condition; however, no statistical analysis has been conducted. Samrbagh exhibits the highest prevalence at 15.8%, comprising 61 instances of vaginal candidiasis and 54 cases without, although no statistical significance is recorded. The remaining regions—Lal Qala, Adenzai, Balmbat, and Munda—exhibit lower prevalence rates, varying from 1.0% to 3.1%, with no statistical analysis available for any of these cohorts. Tehsil Timergara is the sole place where the lack of vaginal candidiasis is statistically significant.

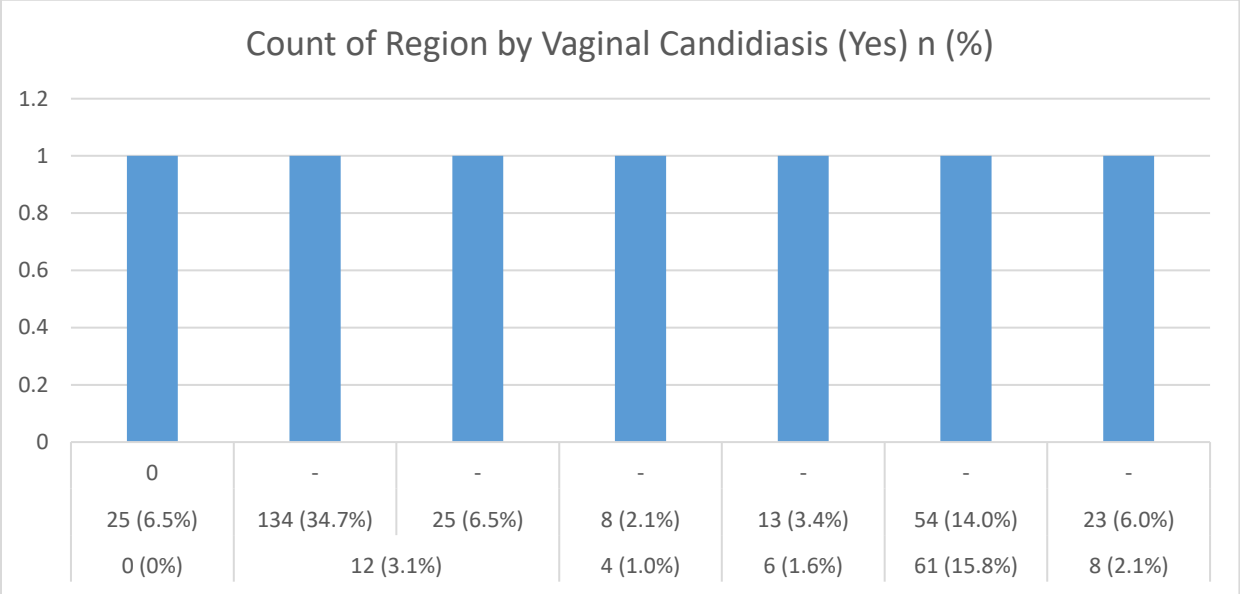

Table 8: Distribution of Vaginal Candidiasis According to Health History

Health History	Vaginal Candidiasis (Yes) n (%)	Vaginal Candidiasis (No) n (%)	P-value
History of STIs	25 (6.5%)	72 (18.7%)	-
No History of STIs	63 (16.3%)	151 (39.1%)	-

Table 8 delineates the distribution of vaginal candidiasis based on health history, specifically regarding the presence or absence of a history of sexually transmitted infections (STIs). Among patients with a history of STIs, 6.5% exhibit vaginal candidiasis, comprising 25 impacted cases against 72 unaffected cases; however, no statistical analysis is included. Conversely, among persons with no history of STIs, 16.3% exhibit vaginal candidiasis, with 63 impacted cases compared to 151 unaffected instances. No statistical significance has been detected for any group. In summary, although the incidence of vaginal candidiasis is greater among those without a history of STIs, this dataset reveals no statistically significant correlation between health history and the occurrence of vaginal candidiasis.

Table 9: Distribution of Vaginal Candidiasis According to Pregnancy Status

Pregnancy Status	Vaginal Candidiasis (Yes) n (%)	Vaginal Candidiasis (No) n (%)	P-value
Pregnant	29 (7.5%)	83 (21.5%)	-
Not Pregnant	59 (15.3%)	151 (39.1%)	-

Table 9 illustrates the prevalence of vaginal candidiasis according to pregnancy status. In the Pregnant group, 7.5% exhibit vaginal candidiasis, comprising 29 impacted patients against 83 unaffected, however, no statistical analysis is presented. In the Not Pregnant group, 15.3% exhibit vaginal candidiasis, comprising 59 afflicted individuals against 151 unaffected cases. No statistical significance has been recorded for any cohort. In summary, whereas the incidence of vaginal candidiasis is reduced in pregnant individuals relative to non-pregnant adults, our dataset reveals no statistically significant correlation between pregnancy status and the occurrence of vaginal candidiasis.

Table 10: Distribution of Vaginal Candidiasis According to Contraceptive Use

Contraceptive Use	Vaginal Candidiasis (Yes) n (%)	Vaginal Candidiasis (No) n (%)	P-value
Using Contraceptives	42 (10.9%)	101 (26.1%)	-
Not Using Contraceptives	46 (11.9%)	133 (34.4%)	-

This table illustrates the prevalence of vaginal candidiasis based on contraceptive usage. Among individuals utilizing contraceptives, 10.9% exhibit vaginal candidiasis, with 42 affected cases compared to 101 unaffected cases; however, no statistical analysis is presented. Among individuals not utilizing contraceptives, 11.9% exhibit vaginal candidiasis, with 46 afflicted cases compared to 133 unaffected cases. No statistical significance has been detected for any group. The prevalence of vaginal candidiasis is comparable between contraceptive users and non-users, with no significant correlation identified in this dataset.

Discussion

In the present study, vaginal candidiasis that we recorded is composed of C.albicans(70.59%) and non-albicans Candida (29.41%), which include Candida tropicalis (13.23%), Candida krusei (4.56%) and unidentified candida sp (11.62%). Our results are consistent with what was reported by Seck et al. (2015) who observed 27.22% positivity which was found to be the highest and Candida albicans was found to be the predominant species [10]. Mogtomo et al. reported a greater VEMP figure in their 2019 analysis. A prevalence of 11.0% including 71.51% Candida albicans and 27.96% Candida non-albicans was reported in 2016 [8]. A subsequent study by Sylla et al. Vulvovaginal candidiasis was found at a rate of 32.6% in a study conducted in 2017 in Senegal with C. albicans (71.51%) and C. non-albicans (27.96%) [11]. The variation in the prevalence of vaginal candidiasis may be due to the immunosuprobabilities of the women, the length of the study, and the temporal context of the study (climatic). The increased prevalence of Candida albicans is due to its pathogenicity, which in turn is enhanced by the increase in stickiness. As opposed to many other species, this species is also able to show filamentous or pseudo-filamentous forms invading more deeply into the vaginal mucus and might be part of a lower tendency to cause symptoms [12]. In the present study, 45.09% were asymptomatic and attended the hospital for antenatal consultation and others were having vulvovaginal candidiasis visited the Volkhov IF Q. 10, 12, 13 although Aguin et al. (2015) observed that chief symptoms in women with VC were copious vaginal discharge and itching [13]. Vulvalitching: Vaginal itching: In our study, 11.76% of women complained of itching. Gynecol Int 2008:497705 16.3. Mtibaa A, Donato G, Mebazaa A MA. A study vulvovaginal candidiasis was found in 72.25% of women presenting vulvovaginal pruritus as a symptom among ninety-four women with vaginal samples analyzed [14]. The higher-than-expected frequency of vaginal pruritus found in the study could be confirmed using the great number of women involved here. Pizzorno et al. " "Clinical presentation of candidiasis the patient will complain of a thick discharge adherent to the vaginal walls, together with pruritus (Askarne 2016). Of those with vaginal candidiasis in our study, 15.68% showed symptomatic pathological leukorrhea, 5.88% dysuria. The vaginal candidacy often appears as curds or rossel leukorrhea with convoluted lines, such as dysuria. Ogouyemi et al. [16] Our study showed that 89.84% of women with vaginal candidiasis experienced coexistent leukorrhea. The disparity in the occurrence of vaginal discharge in our study is also incomparable; thus, the duration of Afolabi et al. 'a observations suggest that the elevated prevalence observed might be because all women who come to the service Gynecological Obstetrics department do, for various reasons. In contrast, our investigation unavoidably minimized the selection bias by paying attention to definite grounds of consultation. Our review showed that the western regions show a high prevalence of vaginal candidiasis at a prevalence of 58.82%. The higher prevalence in the Western region could be due to the conventional socio-cultural norms and peculiar cultural emphasis on cleanliness or health of the female reproductive system in the region, which is inculcated among adolescent girls. In our study, vaginal candidiasis was uncommon in elderly women (11.76%) in contrast to younger women, in which two peaks of increased infection were observed in 18-24

(23.52%) and 25-31 years of age (45.09%). The higher frequency in this age group can be explained by their increased sexual activity persisting for longer periods, leading to disturbance of their normal vaginal-protecting flora of Döderlein. Conclusion: Higher proportion of the younger population is commonly affected by vaginal candidiasis. Similar findings were observed in other studies such as Anane et al. The study of house flies has continued influence due to more research, such as that by Benchellal et al. 2010 in Tunisia and earlier studies in the Kashmir valley about house flies as vectors. in Morocco showed that, the most affected age was between 20 and 39 years in one research and between 25 and 35 years in another [17,18]. The increased prevalence of vaginal candidiasis in these younger subjects could be associated with hormonal estrogenic action or hormonal contraception which might weaken vaginal defense against infection [16]. Those contractions may favor more than two infected partners and would lead to a higher prevalence of candidiasis among the couples (cohabiting and married). loss " phonemic loss.hedoG objcF rof after FF and kilos. [16] We can also assess the role of candida sexual transmission in couples to sex. Our findings in this research showed that vaginal candidiasis predominantly affected students (35.29%) and university-educated women (64.70%) suggesting their educational level and job status. In contrast, Ghaddar et al. (2019) [19] reported a higher prevalence of candidal vaginosis among women with untutored education. Elevated risk of genital candidiasis might be attributed to low knowledge dissemination found within social networks related to vaginal hygiene among university students, in connection with predefined norms for proper intravaginal care [20].

Conclusion

These provide clear data about the magnitude of Vaginal Candidiasis at Timergara Teaching Hospital and some important information about the risk of diseases for women attending Timergara Teaching Gynecology Unit. The findings from this study emphasize the importance of early diagnosis and individualized therapy in the management of vaginal candidiasis by determining the main socio-demographic and clinical characteristics linked to the disease. The results underscore the importance of educating health care workers and the community about the warning signs and dangers of this frequently unrecognized disease. It is our hope that additional research on identifying the causes and the risk factors for the development of the disease, would lead to more effective strategies in prevention and treatment that will ultimately contribute to increased health for women in the region.

REFERENCES

1. Rathod-Sujit D, Klausner JD, Krupp K, Reingold AL, Madhivanan P (2012) Epidemiologic features of Vulvovaginal Candidiasis among reproductive-age women in India. Infect Dis Obstet Gynecol 2012: 859071.
2. Bechart E (1996) Recurrent vaginal candidiasis. Reflections of a psychosomatic gynecologist. Contracept Fertil Sex 24: 233-237.
3. Denning DW, Kneale M, Sobel JD, Rautemaa-Richardson R (2018) Global Burden of Recurrent Vulvovaginal Candidiasis: A Systematic Review. The Lancet. Infect Dis 18: e339-47.
4. Hasna B, Saile R, Abidi O, Wakrim L, Badre EL (2016) Caractérisation microbiologique et moléculaire des candidoses vaginales résistantes aux antifongiques azolés. J Mycol Med 26: 69.
5. Xianling Z, Zhang Y, Zhang T, Xue Y, Xu H, An R (2018) Risk factors of vulvovaginal candidiasis among women of reproductive age in Xi'an: a cross-sectional study. BioMed Res Intern.
6. Mushi MF, Olum R, Bongomin F (2022) Prevalence, Antifungal Susceptibility and Etiology of Vulvovaginal Candidiasis in Sub-Saharan Africa: A Systematic Review with Meta-Analysis and Meta-Regression. Med Mycol 60: 15-21 myac037.
7. Ane-Anyangwe LHD, Meriki, SP, Silum FR, Nsongomanyi Zofou D (2015) Antifungal susceptibility profiles and risk factors of vaginal candidiasis amongst female university students in the southwest region, Cameroon. Afr J Clin Experimental Microbiol 16: 67-72.

8. Mogtomo MLK, Ngo –Njiki A, Longang AM, Kojom- Foko LP, Embolo E, et al. (2016) Prévalence des germes impliqués dans les infections vaginales chez les femmes camerounaises et facteurs de risque. Intern J Biol Chemical Sciences 10: 255-68.
9. Faure M, Drapier E (1997) Vulvo vaginitis. La revue du praticien. 47 :1655-1659.
10. Seck MC, Faye B, Ndiaye M, Sow A, Lô G, et al. (2015) Prévalence de Trichomonas vaginalis et de Candida albicans chez les femme's au laboratoire de l'hôpital militaire de Ouakam, Dakar (Sénégal). Med Afr Noire 6201: 31-37.
11. Sylla K (2018) Candidoses vulvo-vaginales au laboratoire de parasitologie-mycologie du centre hospitalier universitaire de Fann, Dakar (Sénégal). Revue Africaine et Malgache de Recherche Scientifique/Sciences de la Santé 5.
12. Vanessa C (2001) Les candidoses vaginales récidivantes à Candida albicans. Thèse.
13. Aguin TJ, Sobel JD (2015) Vulvovaginal candidiasis in pregnancy. Curr Infect Dis Reports 17: 462.
14. Mtibaa L, Fakhfarh N, Kallel A, Belhadj S, Belhaj N, et al. (2017) Vulvovaginal candidiasis: etiology, symptomatology and risk factor. J Mycol Med 27:153-158.
15. Pizzorno JE, Murray MT, Joiner-Bey H (2015) The Clinician's handbook of natural Medecine. Elsevier.
16. Ogouyèmi-Hounto AS, Adisso J, Djamal R, Sanni R, Amangbegnon B, et al. (2014) A 2014. Place des candidoses vulvo-vaginales au cours des infections génitales basses et facteurs de risque associés chez les femme's au Bénin. J Mycol Med 24: 100-105.
17. Anane SE. Kaouech B, Zouari, S, Belhadj K, Kallel E, et al. (2010) Les candidoses vulvovaginales: facteurs de risque et particularités cliniques et mycologiques. J Mycol Med 20: 36-41.
18. Benchellal MK, Guelzim Z, Lemkhente H, Jamili M, Dehainy D, et al. (2011) La candidose vulvo-vaginale à l'hôpital militaire d'instruction Mohammed V (Maroc). J Mycol Med 21: 106-112.
19. Nahed G, El Roz A, Ghssein G, Ibrahim JN (2019) Emergence of Vulvovaginal Candidiasis among Lebanese Pregnant Women: Prevalence, Risk Factors, and Species Distribution. Infect Dis Obstet Gynecol e5016810.
20. Abdul-Aziz M, Mahdy MAK, Abdul-Ghani R, Alhilali NA, Al-Mujahed LKA, et al. (2019) Bacterial vaginosis, vulvovaginal candidiasis and trichomonal vaginitis amoung reproductive age women seeking primary health care in Sana'a City, Yemen. BMC Infectious Diseases. 19: 879