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VAGINAL DISCHARGE;

FREQUENCY OF DIFFERENT ORGANISMS RESPONSIBLE FOR VAGINAL DISCHARGE

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ABSTRACT... Objective: To find out the causative organisms of vaginal discharge in reproductive age. **Study Design:** A descriptive case study. **Setting:** Department of Obstetrics and Gynaecology, Independent University Hospital Faisalabad. **Duration of Study with Dates:** One year from 01-01-2012 to 31-12-2012. **Subjects and Methods:** A total of 369 patients were included in this study One swab for wet mount to see clue cells, pus cells, budding yeast cells and locomotory effect of Trichomoas vaginalis and to see growth by gram staining in pathology department and reported by pathologist. **Results:** Mean age of the participents was 29.66±6.40 years. In 369 patients, 356 (96.5%) were married while remaining 13 patients (3.5%) were unmarried. Frequencies of different organisms responsible for vaginal discharge among women of reproductive age were as follows: candidiasis 114 (30.9%), bacterial vaginosis 182 (49.4%), trichomonal infection 22 (6.0%), gonococcal vulvovaginitis 9 (2.4%) and genital herpes noted in 2 (0.5%). Remaining 40 patients (10.8%) were normal. **Conclusion:** Vaginal discharge is a common complaint in Gynae outpatients. In our study, the frequency of bacterial vaginosis was highest. Remaining causes are negligible except candidiasis.

key words: Bacterial vaginosis, Candida Albicans, Prevalence, Vaginal discharge.

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INTRODUCTION

The frequent complaint of visits at Gynae outpatients in tertiary care hospitals is vaginal discharge that may reflect different disease patterns. While evaluating different patients for some other problems it may be a concomitant symptom. There may be secretions from vaginal glands that may produce secretions and provide a thin film against infections.[1] The lower genital tract infection caused by different organisms affect more than 90% of reported cases in reproductive years.

Vaginal fungal infections are very common, mainly caused by candida albicans.[2] Bacterial vaginosis caused by Gardnerella vaginalis mobilincus and other anaerobes.[3] Trichomonal infection caused by trichomonas vaginalis.[4,5] Gonorrhea caused by Neisseria gonorrhea, a diplococcus organism.[6] Chlamydial cervicitis a sexually transmitted disease caused by gram-negative bacteria, Chlamydia trachomatis, an obligate intracellular pathogen[7] all are notorious organisms that can cause variety of presentation. Genital Herpes is a recurrent sexually transmitted infection caused by DNA of Herpes simplex virus.[8]

Diagnosis is made by a careful history, physical examination and microscopy (wet mount), culture and sensitivity of swab taken from vagina and urethra.[9]

The reported prevalence is Bacterial vaginosis 28%, Vulvovaginal Candidiasis 12%, Trichomoniasis 4%.[10] Neisseria gonorrhea and C. Trachomatis in 12.4%.[11] Herpes simplex was 51.1%.[12]

The rationale of the study is to scrutinize the patients of vaginal discharge for their possible etiology so that we can provide effective treatment for these patients. The choice of antibiotics and other remedies will be more specific and according to the proper selection criterion. Hopefully there will

not be use of any over the counter medications like tetracycline (doxycycline) or co-amoxiclave are very popular among patients. The best way to treat these patients is to isolate the organisms that are responsible for these infections and to find the provocative factors that are involved in recurrence.

Objective of the Study

To determine the frequency of different organisms responsible for vaginal discharge in outpatients at reproductive years.

MATERIAL AND METHODS

Study design

A descriptive case study.

Setting

Department of Obstetrics and Gynaecology, Independent University Hospital Faisalabad.

Study period

Study was carried out over a period of one year from 01-01-2012 to 31-12-2012.

Sample size

By using WHO sample size calculator. Prevalence of bacteria vaginosis = 4%. Absolute precision required = 2%. Confidence level = 95%. Sample size = 369.

Sampling Technique

Non probability consecutive sampling.

Sample Selection

Inclusion Criteria

All the patients of reproductive age who presented with vaginal discharge.

Exclusion Criteria

Patients who are pregnant presenting with vaginal discharge.

Postmenopausal patients with diagnosis of atrophic vulvovaginitis.

Data Collection Procedure

Permission was sought form hospital ethical committee. Patients would be collected from OPD of Gynaecology department of Independent University hospital Faisalabad. The informed consent was obtained with full information about the protocols of study. History and clinical examination was done according to the consent and 2 samples of high vaginal swabs were obtained with full consideration about asepsis. wet film was made from one swab for direct visualization of fungal hyphae, presence of any clue cells for bacterial vaginosis and flagellated trichomonas. The other swab is sent to laboratory in pathology department where a pathologist is assigned to see the report. All this information is collected in proforma.

All this information was assessed with the help of SPSS version-10. The quantitative and qualitative variables are assessed in respective forms.

RESULTS

Sample of 369 participants presented at reproductive age with vaginal infection were enrolled during the study period of one year from 01-01-2012 to 31-12-2012.

Regarding age distribution, most common group was 20-30 years old. Mean age of the patients was 29.66±6.40 years (Table-I).

Of 369 patients, 356 (96.5%) were married while remaining 13 patients (3.5%) were unmarried (Table-II).

Frequencies of different organisms responsible for vaginal discharge among women of reproductive age were as follows: candidiasis 114 (30.9%), bacterial vaginosis 182 (49.4%), trichomonal infection 22 (6.0%), gonococcal vulvovaginitis 9 (2.4%) and genital herpes noted in 2 (0.5%). Remaining 40 patients (10.8%) were normal (Table-III).

Age (Year)	Number	Percentage
< 20	16	04.3
20-30	210	56.9
31-40	129	35.0
41-45	14	03.8
Total	369	100.0
Mean±SD	29.66±6.40	

Table-I. Distribution of cases by age

Marital Status	Number	Percentage
Married	356	96.5
Unmarried	13	03.5
Total	369	100.0

Table-II. Marital status of patients

Variables	Number	Percentage
Candidiasis	114	30.9
Bacterial vaginosis	182	49.4
Trichomonal infection	22	06.0
Gonococcal vulvovaginitis	09	02.4
Chlamydial trachomatis	-	-
Genital herpes	02	0.5
Normal	40	10.8
Total	**369**	**100.0**

Table-III. Main outcome variables

DISCUSSION

The infective vaginitis is a frequent finding encountered in clinical practice. This study was done to evaluate the major causes of vaginal discharge keeping in mind the prevalence and presentation of sexually transmitted diseases. Also the prevalence of tuberculosis is alarmingly high in low socioeconomic regions.The general regimens that are followed according to CDC authorities are effective but recurrence cases are difficult to treat. This can be very distressing to the patient with far reaching social, economic and psychosexual consequences. This study was aimed at identifying the etiology of persistent vaginal discharge, the knowledge of which will be useful for an efficient management of such patients.

The lower genital tract infection is quiet distressing factor in females life that affects the quality of life of females of reproductive years. Also it is the very common finding that number of patients present with recurrence of symptoms that pose a difficult situation to treat.[13]

There is wide range of different patients who complain even with normal discharge and experience it unpleasant. On the other hand patients with significant infections do not consult there doctors because of their personal misbeliefs.

Bacterial mixed infections are thought to be the most prevalent infections among Gynae outdoor patients.[14]

In present study, like narrated in different previous studies, bacterial vaginitis is the most frequent infection (49.4%). Candidiasis accounts for 30.9% trichomonal infection (6%), gonococcal vulvovaginitis 2.4% and genital herpes 0.5%. Normal cases were 10.8%.Hainer and Gibson also reported bacterial vaingosis, trichomoniasis and vulvovaginal candidiasis are the most common infectious causes of vaginitis[15] which is consistent with our findings.

Puri et al had similar results to our study. The incidence of bacterial vaginosis was 45%, candidiasis causing infection was 31% and trichomonal infection was 2%.[16]

In contrast, the other study by Samina et al, the incidence of bacterial vaginosis was found to be very low. The results are contradictory to our study (11.3%) as compared to our study.[17]

Candidiasis was observed in 30.9% of patients in our study which is comparable with the study of Kent demonstrated that in united states of America, vaginitis caused by candida albicans is the less frequent cause as compared to bacterial vaginosis while it is most common in Europe.[18]

The prevalence of different organisms causing vaginitis is different in different ethinic backgrounds. It may be relevant to their environmental factors, their religious beliefs of body cleanliness ar different practices used on their cultural beliefs. This study is an attempt to find out the evaluation of causative factors that are present in our social setup. It is a short scale study but its findings may be very helpful in management of our patients.

CONCLUSION

This study concludes with the fact that bacterial vaginosis is the most prevalent infection that affects the reproductive aged patients and proper selection of antibiotic is required for ultimate treatment. The result is in contrast to the illusion that candidiasis is the commonest infection and

routine antifungal preparations should only be prescribed after confirmation of diagnosis.

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