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Frequency of vaginitis types based on Pap smear test in patients referred to the gynecology clinic of Shahid Sadoughi hospital in Yazd

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Abstract

Three agents including candida, trichomonas and bacteria, are the main causes of vaginitis. According to studies conducted in Iran and other parts of the world on the increase of vaginal infections, the present study was conducted to evaluate the frequency of vaginitis based on Pap smear in patients referred to the gynecology clinic of Shahid Sadoughi hospital in Yazd, Iran. The sampling method was census and all cases referred to the gynecology clinic of Shahid Sadoughi hospital in Yazd for Pap smear during 2022 were investigated. Finally, the data were entered into SPSS and analyzed. 378 patients (45%) had vaginitis. According to the results of the study, no statistically significant difference was found between the frequency distribution of vaginitis based on age, dyspareunia, frequency of urination, dysuria and education level. The results of the present study showed a high prevalence of bacterial vaginitis compared to other types of vaginitis.

Keywords: Pap smear, Vaginitis, Yazd.

INTRODUCTION

Every year many people go to medical centers because of vaginitis [1]. According to the definition of the World Health Organization, three agents of candida, trichomonas and bacteria, are the main causes of vaginitis [1, 2]. Vaginitis can be asymptomatic or have a range of symptoms including irritation, itching, and foul-smelling yellow secretions [3]. It due to candida occurs when candida grows together with the bacterial flora of the vagina [4]. This situation can be due to the use of broad-spectrum antibiotics, the increase of glycogen in the vaginal epithelium, as well as heat and humidity [5]. Bacterial vaginitis is one of the most common types of vaginitis in women of reproductive age [6].

In the past, vaginitis was a harmless disease that did not require treatment in asymptomatic cases, but today it has been shown that if the disease progresses, it may have severe complications in women [5].

Maintaining and improving women's health is particularly important because of their reproductive function in society [7]. Considering that one of the health problems of women is vaginitis and in some cases it also leads to infertility, so, the current study was conducted to investigate the vaginitis types based on pap smear test in patients referred to the gynecology clinic of Shahid Sadoughi hospital in Yazd, Iran.

MATERIALS AND METHODS

The current study was a descriptive study that was conducted as cross-sectional on all women who referred to the women's clinic of Shahid Sadoughi hospital in Yazd for a pap smear for infectious vaginitis in 2022. This study was approved in the ethics committee of Shahid Sadoughi University of Medical Sciences of Yazd, Iran. The sampling method was census. The information of the patients was recorded by reviewing their files.

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The data collection tool in the current study was telephone calls to patients. The information of the patients included: age, clinical manifestations of the disease (discharge, itching, dyspareunia, dysuria, and frequency of urine) and type of vaginitis (candida, trichomonas, and bacterial).

Pap smear was done by liquid based method. The examined samples were from the cervix.

In this study, the samples were transferred to a container containing a special liquid medium and then transferred to the cytological laboratory to perform the process. By this method, the chance of contamination of the samples was reduced. One plus and above cases were considered positive for bacteria.

After collecting the data, they were entered into SPSS software (version 22) and analyzed. In all cases, $p < 0.05$ was considered as a significant level.

RESULTS

In this study, Pap smear was performed in 847 women, of which 378 (45%) had vaginitis. The age mean of the investigated patients was 38.07 years with a minimum age of 18 and a maximum age of 59 years.

The most common type of vaginitis was bacterial type (63%) (Table 1).

Most of the cases had discharge (148 cases or 41.3%) and the second common symptom among the patients was itching (135 cases or 37.7%).

Most patients in terms of education were associate degree and lower (269 cases or 75.5%).

The frequency distribution of vaginitis types according to age is shown in Table 2.

There was a significant relationship between the frequency distribution of vaginitis type and clinical symptoms of discharge and itching (Table 3).

DISCUSSION

The prevalence of vaginitis in the present study was 45%. Also, the age mean of the patients was 38.07 years. Most of the cases were bacterial vaginitis. Most of the patients had discharge and itching symptoms.

In a study in Isfahan, Iran results showed that the prevalence of vaginitis was 25.3%. Also, the mean age was 31.06±7.1. Similar to current study, bacterial type of vaginitis was high (70%) [8].

In another study that was performed to detect vaginitis cases, the patients' age mean was 33. Also, bacterial and candida types had high prevalence [9].

In a study, bacterial type prevalence was 38%. The age mean in this study was 28.1 [10].

In another research in Nepal, 39% of the participants (pregnant women) had vaginitis. More cases were bacterial type (almost 52%). Also, the most prevalence was related to age groups of 20-29 and 30-39 [11].

Table 1: Frequency distribution of vaginitis type in the patients

Vaginitis type	Frequency (N)	Percent (%)
Bacterial	238	63
Candida	71	18.8
Trichomonas	69	18.3
Total	378	100

Table 2: Frequency distribution of vaginitis types according to age

| Age (year) | Vaginitis type | | | Total |
	Bacterial N (%)	Candida N (%)	Trichomonas N (%)	N (%)
18-29	42 (17.6)	10 (14.1)	17 (24.6)	69 (18.3)
30-45	135 (56.7)	50 (70.4)	36 (52.2)	221 (58.5)
46 ≤	61 (25.6)	11(15.5)	161(23.2)	88 (23.3)
Total	238 (100)	71 (100)	69 (100)	378 (100)
P-value	0.136			

Table 3: Frequency distribution of vaginitis types based on clinical symptoms

Clinical symptoms		Vaginitis type			P-value
		Bacterial N (%)	Candida N (%)	Trichomonas N (%)	
No symptom		88 (39.8)	16 (23.2)	18 (26.5)	0.013
Discharge	Yes	74 (33.5)	44 (63.8)	30 (44.1)	0.000
	No	147 (66.5)	25 (36.2)	38 (55.9)	
Itching	Yes	68 (30.8)	28 (40.6)	39 (57.4)	0.000
	No	153 (69.2)	41 (59.4)	29 (42.6)	
Dysuria	Yes	38 (17.2)	9 (13.0)	14 (20.6)	0.499
	No	183 (82.8)	60 (87.0)	54 (79.4)	
Frequency of urine	Yes	29 (13.1)	10 (14.5)	9 (13.2)	0.957
	No	192 (86.9)	59 (85.5)	59 (86.6)	
Dyspareunia	Yes	47 (21.3)	16 (23.2)	22 (32.4)	0.170
	No	174 (78.7)	53 (76.8)	46 (67.6)	

CONCLUSION

Bacterial infections play an important role in women's vaginitis. In the current study was also approved that bacteria were the most important agents. Thus, bacteria should be considered as serious agents in creating vaginitis in the women.

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Conflict of Interest

We state that have no conflict of interest.

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