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ORIGINAL ARTICLE

Pap smear analysis in women aged 21-60 years

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ABSTRACT:
Background: About 12% of all cancers diagnosed in women are cervical cancers, making them a significant worldwide health problem. The present study was conducted to assess Pap smears in women. **Materials & Methods:** 80 prepared slides in a Coplin Jar and dipped them in ethyl alcohol for the study. Slides were stained with Pap stain once they had air dried. According to the Bethesda classification system, the reporting was finished by two cytopathologists working independently. **Results:** The age group 21-30 years had 48, 31-40 years had 17, 41-50 years had 10, and >50 years had 5 patients. The difference was significant (P< 0.05). Diagnosis was unsatisfactory in 6, normal in 6, inflammatory (non-specific) in 21, mixed infection in 6, ASCUS in 2, candidiasis in 10, and trichomoniasis in 4, bacterial vaginosis in 19, actinomycosis in 6 cases. The difference was significant (P< 0.05). **Conclusion:** Pap smears are a useful screening method for the early detection of premalignant and cancerous cervix lesions. The incidence of invasive cervical cancer can be decreased by implementing an appropriate Pap screening program that identifies cervical premalignant lesions early.
Keywords: Cervical cancer, Pap smear, Trichomoniasis

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INTRODUCTION

About 12% of all cancers diagnosed in women are cervical cancers, making them a significant worldwide health problem.[1] According to global cancer statistics, almost 80% of all incidences of cervical cancer occur in developing and low-resource countries due to a lack of knowledge and the difficulties in putting cytology-based screening programs into place.[2] The highest age-standardized incidence of cervical cancer in South Asia is found in India. A straightforward pap test can detect and treat cervical cancer and its precursor lesions early. Pap smears, a popular screening method, can detect HSIL with a sensitivity of 70–80%.[3]

A variety of intraepithelial lesions, ranging from mild-to-severe dysplasia to invasive cancer, are indicated by abnormalities in cervical epithelial cells found in the pap smear.[4] The Pap smear has a 70–80% overall sensitivity in identifying high-grade squamous intraepithelial lesions (HSIL), even though it is a routine screening method.[5] Cervical cytology results are recorded using the Bethesda System (TBS), a standardized terminology system designed to provide clear guidance for clinical management. Between the ages of 21 and 65, Pap smear screening is recommended.[6]The present study was conducted to assess Pap smears in women.

MATERIALS & METHODS

The pathology department received 80 prepared slides in a coplin jar and dipped them in ethyl alcohol for the study. Slides were stained with Pap stain once they had air dried. According to the Bethesda classification system, the reporting was finished by two cytopathologists working independently. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Age group (years)	Number	P value
21-30	48	0.05
31-40	17	
41-50	10	
>50	5	

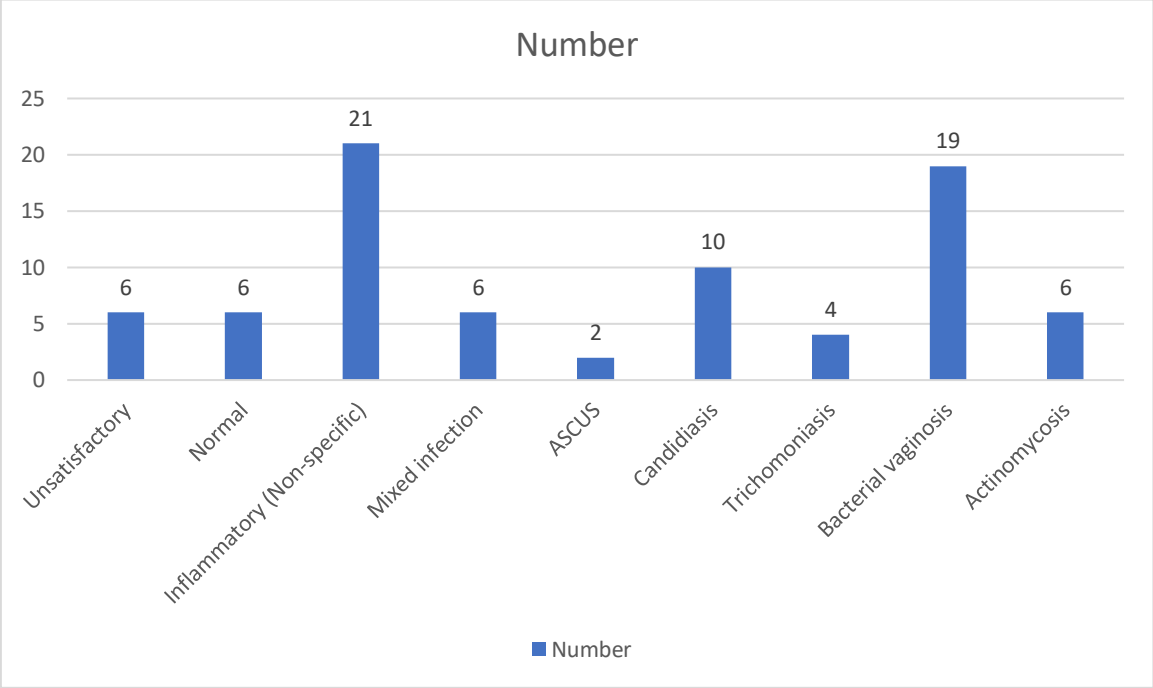
Table I shows that the age group 21-30 years had 48, 31-40 years had 17, 41-50 years had 10, and >50 years had 5patients. The difference was significant (P< 0.05).

Table II Assessment of diseases on pap smear

Findings	Number	P value
Unsatisfactory	6	0.05
Normal	6	
Inflammatory(Non-specific)	21	
Mixed infection	6	
ASCUS	2	
Candidiasis	10	
Trichomoniasis	4	
Bacterial vaginosis	19	
Actinomycosis	6	

Table II, graph I shows that diagnosis was unsatisfactory in 6, normal in 6, inflammatory (non-specific) in 21, mixed infection in 6, ASCUS in 2, candidiasis in 10, and trichomoniasis in 4, bacterial vaginosis in 19, actinomycosis in 6 cases. The difference was significant (P< 0.05).

Graph I Assessment of diseases on pap smear



DISCUSSION

One of the leading causes of death for women worldwide is cervical cancer. Cervical cancer is a global illness. Even while the prevalence of cervical cancer has significantly declined in wealthier nations, there is still a sizable disparity in incidence between them.[7,8] In underdeveloped countries like India, the prevalence of cervical cancer is still high. It is evident that over 80% of cervical cancer incidences occur in developing and low-resource countries, mostly due to a lack of knowledge and the difficulties in putting cytology-based screening programs into place.[9] Promoting awareness of cervical cancer screening programs, educating women about cancer signs, and encouraging them to get screened for the disease at the hospital are all necessary.[10]Counseling regarding the necessity of cancer screening should be given to women and other family members. Women who test positive for Pap smears require appropriate care and ongoing monitoring. In order to incorporate screening at primary health centers, we must fortify our healthcare system and services.[11]The present study was conducted to assess Pap smears in women.

We found that the age group 21-30 years had 48, 31-40 years had 17, 41-50 years had 10, and >50 years had 5 patients. Pradhan et al[12] discovered that patients with worrisome cervixes who visited the Western Regional Hospital (Pokhara) and TUTH Gynecology OPD and had undergone a biopsy and pap smear cytology test were chosen. A thorough history and clinical examination were conducted, and the results were compared. Even in cases of chronic cervicitis, an unhealthy cervix with discharge was shown to be prevalent; however, more advanced lesions were linked to bleeding and pain. It was discovered that the Pap smear test was just as sensitive to histological analysis for the early identification of various cervical abnormalities. For correlation and confirmation, a biopsy is recommended if any abnormalities are seen in the pap smear.

We observed that diagnosis was unsatisfactory in 6, normal in 6, inflammatory (non-specific) in 21, mixed infection in 6, ASCUS in 2, candidiasis in 10, and trichomoniasis in 4, bacterial vaginosis in 19, actinomycosis in 6 cases. In their study, Ansari et al[13] carefully evaluated 320 postmenopausal Indian women's Pap smears. Based on the type of postmenopausal pattern, the lesions were categorized. The Bethesda approach was utilized to classify the 120 smears that displayed different levels of premalignant and malignant alterations. The results were associated with parity, length of sexual activity, and menopausal duration, and a significant level was established. When biopsies were available, histopathological correlation was carried out. It was shown that there was a statistically significant correlation between the occurrence of low-grade and high-grade squamous intraepithelial lesions and carcinoma with the patients' ages. Increased parity and the duration of sexual activity were similarly linked to the incidence of these lesions. The following situation was found by Banik U et al[14]: 0.35% malignancy, 6.36% LSIL, 1.18% HSIL, 0.12% Atypical glandular cells (AGC), and 0.18% ASCUS. ASCUS was 0.77%, ASC-H was 0.35%, HSIL was 0.35%, SCC was 0.14%, and AGUS was 0.28% in this study.
The limitation of the study is the small sample size.

CONCLUSION

Authors found that Pap smears are a useful screening method for the early detection of premalignant and cancerous cervix lesions. The incidence of invasive cervical cancer can be decreased by implementing an appropriate Pap screening program that identifies cervical premalignant lesions early.

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