

Study on cervical pap smear in a tertiary care center

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Abstract

Background: Cervical cancer is the 2ndmost common cause of cancer related deaths among women in developing countries

Aims & Objectives: screening the women for the cervical cancer using pap smear to detect precancerous lesions to decrease cancer cervix.

Material & Methods: Pap smear was obtained by conventional method using an Ayre’s spatula and endocervical brush on 531 women attending gynaecology OPD at hospital affiliated to Andhra Medical College over 6 months from January-June 2022 and subjected to pathological study and statistical analysis using SPSS 20.

Results: Mean age of the study participants was 39.49(11.68) years. Most of them were screened opportunistically. All women in our study were married with monogamous relationship .Vaginal discharge was

chief complaint. Cervix was healthy looking in majority. Most common Pap cytology was NILM 510 (96.05%). Epithelial cell abnormality constituted 21(3.95%).Unsatisfactory smears 10(1.8%)

Conclusions: Preinvasive and malignant lesions of cervix can be easily detected with simple pap smear test which is cost effective. The Epithelial cell abnormality was found to be 3.95% in our study. Most of the women had pap test for the first time in their life. None of them knew that cervical cancer can be detected in precancerous state .Treatment of preinvasive lesions can prevent cancer cervix. Thus, the community should be enlightened about pap smear test to decrease cancer cervix.

Keywords: Pap smear, Preinvasive lesions of cervix, Carcinoma cervix

Introduction: Cervical cancer is the 2ndmost common cause of cancer related deaths among women in

developing countries¹. Mortality due to cervical cancer is also an indicator of health inequalities, as 86% of all deaths due to cervical cancer are in low- and middle-income countries². Every year in India, 123907 women are diagnosed with cervical cancer and 77348 die from the disease³. India has a national programme for cancer since 1975, when the emphasis was on equipping premier cancer in situations. In 2010, cancer control became a part of a more comprehensive, larger programme on non-communicable disease called National Programme for Prevention and Control of Cancer⁴.

Keeping in view the topographical conditions and high incidence of cervical cancer, the present study is an attempt to screen the women attending Gynaecology OPD for the cervical cancer using pap smear.

Materials and methods

It is a hospital-based observation study, which was conducted in the Department of Obstetrics & Gynaecology at Andhra Medical College, Vishakhapatnam, over a period of 6months, from January-June 2022.

A total of 531 women attending gynaecology OPD who consented to participate in the study were included. After clinical and gynaecological examination pap smear was obtained by conventional method using an Ayre’s spatula and endocervical brush. Pap smear is fixed in 95% isopropyl alcohol and stained with PAP stain. Pap smear is interpreted as per “The Bethesda system of cervical cytology” 2014.

Inclusion criteria

- Age >21 yrs.
- Women with c/o white discharge.
- Post coital bleeding
- Intermenstrual bleeding

- Postmenopausal bleeding.
- Multiple sexual partners.
- Unhealthy looking cervix.
- Cervical lesions that bleed on touch.
- Smokers.
- Women without any symptoms were screened.

Exclusion criteria

- Women not willing to participate in the study.
- Treated cases of cancer cervix.
- Known cases of cancer cervix.
- Women who are pregnant.

Result

A total 531 women who attended Gyneac OPD, Pap smear was taken and studied.

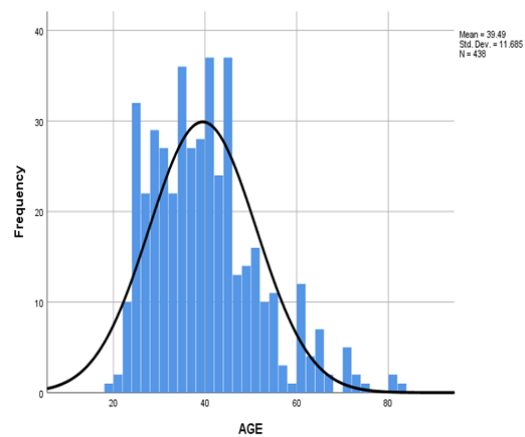


Table 1: Age distribution

Age

Mean	39.49
Median	38.00
Standard Deviation	11.685
Range	64
Minimum	19
Maximum	83

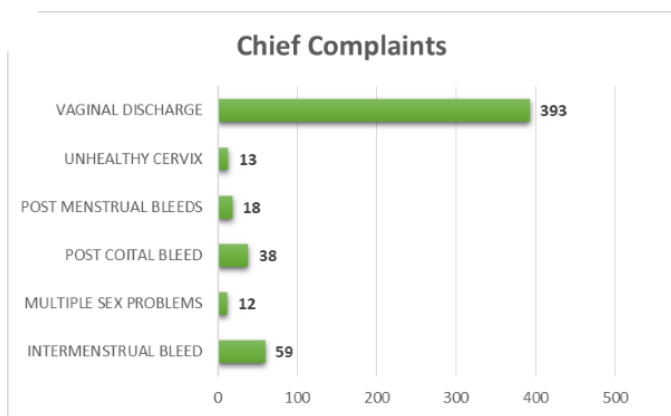
Mean age of the study participants was 39.49(11.68) years, range is 64 years, youngest participant was 19 years old and eldest was 83 years old.

Table 2: Sociodemographic factors

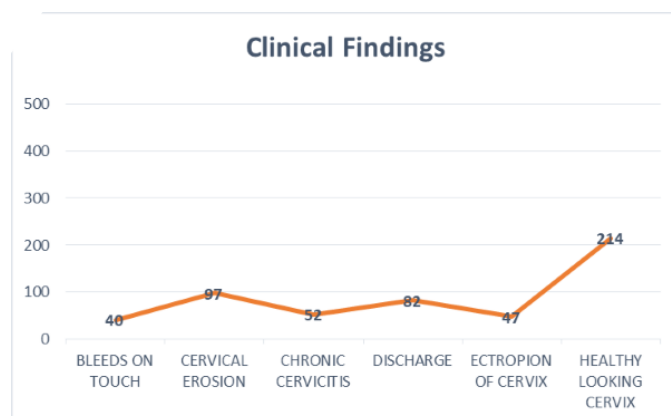
Age group[years]	Number %
22-30	156(29.3%)
31- 45	267(50.8%)

46- 65	108(20.33%)
Parity	Number
Nulliparous	6
Primipara	27
Multipara	498
Marital status	Number
Unmarried	0
Married	531
Educational status	Number
Uneducated	227
Metric	208
Higher secondary	74
Graduate	22
Contraception usage	Number
None	193
Barrier	116
Tubal ligation	184
Iucd	21
Ocp	7
Others	10

Graph 2: chief complaints



Graph 3: Clinical findings



Cytology results on pap smears

Table 3: NILM (Negative for Intra epithelial lesion or malignancy. N = 510(96.05%)

Impression in NILM	Number%
NILM- reactive	393(74%)
NILM- inflammatory	71(13.37%)
NILM- atrophic	22(4.14%)
NILM- trichomonas vaginalis	6(1.12%)
NILM- candida	5(0.94%)
NILM-bacterial vaginosis	13(2.44%)

Table 4: epithelial cell abnormality

Impression	Number%
ASCUS	5(0.94%)
LSIL	13(2.44%)
HSIL	2(0.37%)
Squamous cell carcinoma	1(0.2%)

- In our study most of the women had pap test opportunistic screening, when they visited Gyn OPD
- Only 6women came for pap smear screening on voluntary basis
- All women in our study were married with monogamous relationship.
- The mean age of the participants was 39.49 years.
- Most common symptom was vaginal discharge (393).
- Most common clinical finding was healthy looking cervix (214).
- Most common Pap cytology was NILM 510 (96.05%)
- Epithelial cell abnormality constituted 21(3.95%)
- Unsatisfactory smears 10(1.8%)

Discussion: In the present study most of the women had pap test for the first time in their life. None of them knew that cervical cancer can be detected in precancerous state by pap test. All women in the present study were married with monogamous relationship. The mean age of the participants was 39.49years, range is 64, youngest participant being 19 years and oldest being 83 years old screened opportunistically similar to other studies.^{5,6}

Table 5: Comparison of epithelial cell abnormality of present study with other studies

PAP SMEAR	Verma et al; ⁷	Nayir et al; ⁸	Padmini et al; ⁹	Sengul et al; ¹⁰	Nayani et al; ¹¹	Present study
ASCUS	1.0%	1.7%	8.0%	1.18%	--	0.94%
LSIL	5.55%	0.5%	5.0%	0.39%	8.6%	2.44%
HSIL	2.5%	0.1%	3.0%	0.16%	3.8%	0.37%
SCC	--	--	1.0%	--	0.9%	0.2%

The percentage of epithelial abnormalities is about 2.3% to 6.6%, in the US, 1.6% to 7.9% in the Middle East, 1.87 to 5.9% in India and 3.95% in the present study. LSIL was the common epithelial cell abnormality detected in PAP Smears similar to all the comparative studies .⁷⁻

¹¹Incidence of ASCUS was similar to other studies but lesser than Padmini et al. Cervical cancer prevention needs a periodic screening . Population based cervical cytology screening programmes have been offering pap testing every 3 to 5yrs. Cervical cancer can be prevented with treatment of preinvasive lesions of cervix.

Conclusion: Preinvasive and malignant lesions of cervix can be easily picked up with simple pap smear test which is cost effective. The Epithelial cell abnormality was found to be 3.95% of all the women screened in our study. Most of the women had pap test for the first time in their life. None of them knew that cervical cancer can be detected in precancerous state. Thus, the community should be enlightened about pap smear test, in developing countries like India. Screening for cancer cervix with pap smear is an important part of preventive health care of women.

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