Original Research Article

Assessment Of PAP Smear In Antenatal Women

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Abstract

Background: Cancer cervix is amongst the commonest cancers affecting women in India along with breast cancer.The present study was conducted to assess PAP smear in antenatal women.**Materials & Methods:** 78 antenatal women visiting the Department of Obstetrics & Gynecology were enrolled. Cusco's speculum was introduced into the vagina and the cervix was visualised. Smear was collected with Ayre's spatula. The cytological results were reported based on the Bethesda classification system 2001. **Results:** Age group <20 years had 16, 20-30 years had 40, 30-40 years had 12 and >40 years had 10 patients. The difference was significant (P< 0.05). Gestation age 5-10 weeks had 12, 11-15 weeks had 18, 16-20 weeks had 10, 16-20 weeks had 10, 21-25 wees had 14, 26-30 weeks had 14 and >30 weeks had 10 patients. Per speculum examination revealed healthy cervix in 72, erosion of cervix in 4 and growth in 2 cases. The difference was significant (P< 0.05). PAP smear showed nil in 54, inflammatory changes in 19, no satisfactory sample in 3, ASCUS in 1 and LSIL in 1 patient. The difference was significant (P< 0.05). **Conclusion:** Antenatal women should be subjected to PAP smear as chances of cervix cancer in high in them.

Keywords: Antenatal women, PAP smear, Per speculum

Introduction

Cancer cervix is amongst the commonest cancers affecting women in India along with breast cancer. In a year more than 100,000 women are afflicted by this disease[1]. India had a population of more than 400 million women aged 15 years and older who are at risk of developing cervical cancer and has the largest burden of cervical cancer patients in the world. India accounts for about 15 % of the total cervical cancer deaths in the world and this incidence continues to be high[2].The usual progression from mild dysplasia to carcinoma cervix is about 10 to 20 years. The dysplastic features can be seen on screening tests and hence carcinoma cervix is a preventable disease. The issues faced in a large country like India is where the difficulty arises and in the absence of awareness and good screening programs, women are usually diagnosed later[3]. The analysis of epidemiological data shows that disease has been detected during the pregnancy or postpartum period in 1.7 to 3.1% of all patients with invasive cervical cancer. The incidence of abnormal cervical cytologic findings during pregnancy is 0.72 to 1.67%. Approximately 86% of all squamous intraepithelial lesions (SIL) identified during pregnancy are classified as low-grade SIL, whereas 14% are high- grade SIL. High-risk human papilloma virus (HPV) is the cause of cervical cancer[4].It is a curable disease if early detection and precancerous lesion is timely treated. Given the high number of women seeking prenatal care and the close follow up provided during this period, pregnancy and prenatal care offer an excellent opportunity to implement the cervical cytology test for premalignant condition in young age group patients[5].The present study was conducted to assess PAP smear in antenatal women.

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Materials & Methods

The present study comprised of 78 antenatal women visiting the department of Obstetrics & Gynecology, Govt Medical College, Datia, M.P. All enrolled women were made aware of the study and their written consent was obtained.

Demographic profile of each women such as name, age, etc. was recorded in case history proforma. Patient was put in lithotomy position. Cusco's speculum was introduced into the vagina and the cervix was visualised. Smear was collected with Ayre's spatula. All smears were immediately sprayed with a fixative and sent to the department of Pathology. The cytological results were reported based on the Bethesda classification system 2001. Abnormal results were defined as atypical squamous/ glandular cells or more which include atypical squamous cell of undetermined significance (ASC-US), atypical squamous cell cannot exclude HSIL (ASC-H), low-grade squamous intraepithelial lesion (LSIL), high-grade squamous intraepithelial lesion (HSIL), atypical glandular cell not otherwise specified (AGC-NOS), atypical glandular cell favorneoplasia (AGC-FN), adenocarcinoma in situ (AIS), adenocarcinoma and squamous cell carcinoma (SCCA). Results thus obtained were subjected for statistical analysis. P value less than 0.05 was considered significant.

Results

Table 1:Age wise distribution

Age group (Years)	Number	P value
<20	16	0.01
20-30	40	
30-40	12	
>40	10	

Table 1 shows that age group <20 years had 16, 20-30 years had 40, 30-40 years had 12 and >40 years had 10 patients. The difference was significant (P< 0.05).

Table 2:Distribution as per gestation age

Gestation age (Week)	Number	P value
5-10	12	0.81
11-15	18	
16-20	10	
21-25	14	
26-30	14	
>30	10	

Table 2 shows that gestation age 5-10 weeks had 12, 11-15 weeks had 18, 16-20 weeks had 10, 16-20 weeks had 10, 21-25 wees had 14, 26-30 weeks had 14 and >30 weeks had 10 patients. The difference was non- significant (P> 0.05).

Table 3:Per speculum examination

Per speculum results	Number	P value
Healthy cervix	72	0.01
Erosion of cervix	4	
Growth	2	

Table 3 shows that per speculum examination revealed healthy cervix in 72, erosion of cervix in 4 and growth in 2 cases. The difference was significant (P< 0.05).

Table 4:PAP smear assessment

PAP smear	Number	P value
Nil	54	0.01
Inflammatory changes	19	
No satisfactory sample	3	
ASCUS	1	
LSIL	1	

Table 4, Fig 1 shows that PAP smear showed nil in 54, inflammatory changes in 19, no satisfactory sample in 3, ASCUS in 1 and LSIL in 1 patient. The difference was significant (P< 0.05).

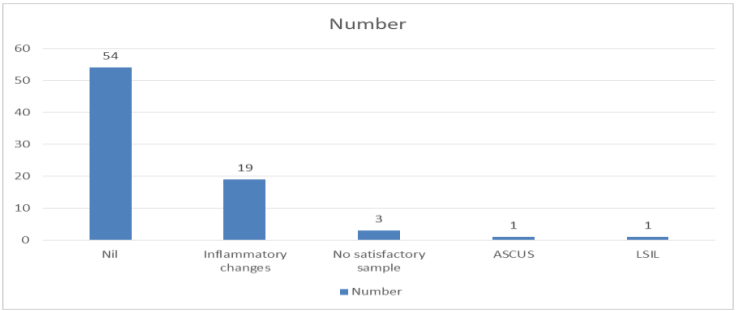

Fig 1:PAP smear assessment

Discussion

Pregnancy represents a unique opportunity to screen reproductive age women for cervical cancer and abnormal cervical cytology is relatively common in this population. Cervical cancer can be detected at an early stage by a Pap smear. This is a simple, cost effective, easy to perform test and is safe to be carried out in pregnancy without jeopardising the outcome[6].Visits for antenatal check-ups by women are a potential opportunity to perform this test and educate them regarding the significance of screening. In a country like India, this may be the only opportunity when the woman visits the hospital or health centre and educating her is therefore necessary. In addition, it helps in identifying and treating infections that could play a role in the pregnancy outcome[7].A clinical difficulty is that the normal changes of the cervix during pregnancy can in many ways mask a cancer and the malignancy may thus be missed if not multiple or large biopsies are taken. Invasive interventions on the cervix may increase the risk of bleeding, secondary to the increased vascularity during pregnancy, and

increased risks for obstetrical complications may also be present. Conventional Pap smear is the standard method for cervical cancer screening[8].The present study was conducted to assess PAP smear in antenatal women.In present study, age group <20 years had 16, 20-30 years had 40, 30-40 years had 12 and >40 years had 10 patients. Priya et al[9] conducted a study on 200 antenatal women. Ayre's spatula was used to conduct smear tests. The pap smear report revealed that 26% of the subjects had inflammatory changes and for 66% it showed negative for intraepithelial lesion and for only 1% of the subjects had signs related to carcinoma cervix in which one patient had Atypical Squamous Cell of Undetermined Significance (ASCUS) and another patient had Low-grade Squamous Intraepithelial Lesion (LSIL) and no satisfactory sample was able to be obtained in 6% of the subjects. In present study authors found a statistically significant association between the age at marriage and the pap smear report, lower the age at marriage.We found that gestation age 5-10 weeks had 12, 11-15 weeks had 18, 16-20 weeks had 10, 16-20 weeks had 10, 21-25 wees had 14, 26-30 weeks had 14 and >30 weeks had 10 patients. Ahuja et al[10] in their study 308 women underwent a pap smear in their 1st trimester. 94% were satisfactory smears and 3(0.9%) an abnormal smear (2 LSIL and 1 ASCUS). 31.2% had inflammatory smears. Only 15 women were aware of pap smear as a test for cancer cervix screening and all these women were graduates and above. No women had ever had a pap smear test in the past. One fifth of women studied had 1 or more risk factor the commonest being early age at first intercourse.We observed that per speculum examination revealed healthy cervix in 72, erosion of cervix in 4 and growth in 2 cases. PAP smear showed nil in 54, inflammatory changes in 19, no satisfactory sample in 3, ASCUS in 1 and LSIL in 1 patient. Although many practices send for reflex high-risk type HPV testing only in the setting of ASCUS, others may elect to perform high-risk type HPV testing at the time of prenatal cervical cytology for pregnant women over the age of 30[11]. For those pregnant women with negative cytology and a positive high-risk HPV test, the ASCCP guidelines recommend repeating Papanicolaou smear and HPV testing at the 6-week postpartum visit. Negative repeat cytology but a persistently positive high-risk type HPV testing in the postpartum period warrant a colposcopic examination. In a prospective study from France, negative cytology with a positive high-risk type HPV testing result is associated with 4% of lesions consistent of CIN 2 or higher. Patients with LSIL on Papanicolaou test are extremely unlikely to have an invasive lesion when biopsied[12].A retrospective study by Jain et al found that none of the 253 patients had an invasive lesion on antepartum biopsy and only yielded 6 cases of high-grade lesions.

Conflict of Interest: Nil
Source of support:Nil

Conclusion

Authors found that antenatal women should be subjected to PAP smear as chances of cervix cancer in high in them.

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