



Original Research Article

To develop cytology procedure as a routine and to get familiar with cytological appearances of the commonly encountered cervical and vaginal lesions

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ABSTRACT

Background & Method: The material for the current investigation contained assessment of 1542 cervical/vaginal smear, taken from patients going to the out-tolerant Department of Obstretic and Gynecology and further shipped off Department of Pathology for cytomorphological examination. The legitimate example assortment is perhaps the main strides in pap smear screening. At any rate one half to 66% of bogus negatives are the aftereffect of patient conditions present at the hour of test assortment and accommodation and the expertise and information on the person who acquires the example. Sufficient cervical cytology tests ought to be gathered and submitted to the lab with proper clinical data.

Study Designed: Cross sectional observational study.

Result: 27 cases of epithelial cell abnormality, out of which 17 cases show Atypical squamous cells of uncertain significance, 1 case show Atypical glandular cells of uncertain significance. 2 cases shows low grade squamous intraepithelial lesions, 2 cases shows high grade squamous intra epithelial lesions. A total of 5 smears show invasive carcinoma cervix. Maximum cases of LSIL were detected in 41-50 years of age group and maximum cases of HSIL were detected in 31-60 years of age group whereas maximum cases of carcinoma cervix were detected in 51-60 years of age group.

Conclusion: In the developing countries like India, cervical cytology, due to its low cost and easy availability, is the most important diagnostic tool for the screening of females of reproductive age group. The patient attending the Gynecology Out Patient Department were targeted in this study, so as to screening all the females, even with minor symptoms like discharge per vaginum.

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1. Introduction

The long interval between initial infection and disease indicates that there are other factors involved, such as sexual behaviour, reproductive factors, other sexually transmitted diseases, coinfection with HIV, smoking, nutritional deficiency, genetic susceptibility, use of hormonal contraceptives, and high parity.¹

Young age is a prime determinant of incidence of HPV infections,² which displays a dramatic drop with increasing age.³ In 20-30% of women a peak of HPV infection is generally seen at age of 20-24 years while only 3-10% shows peak incidence at age over 30 years. Cancer is

predominantly a disease of older age group, its relative magnitude in a country depends on the age composition and size of population. Age of marriage has been regarded as a major risk factor associated with cervical cancer.⁴

Human papilloma virus (HPV) is associated with more than 99% of all cervical cancer cases. In addition, a significant percentage of vulvar, vaginal, penile, anal & perianal carcinomas are HPV positive,⁵ often containing HPV 16 DNA,⁶ while a fraction of carcinoma in other sites of the human body has also been linked to high risk HR-HPV infections.

Cytology is a valuable clinical apparatus for examination of illness measures, and the methods and their understanding have formed into a whole discipline.⁷ This conversation is a concise manual for empower experts

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to plan tests and attempt essential understanding; it alludes generally to little creatures, however the fundamental standards apply to all species.

Cytology ought to be viewed as a guide. Qualities of the cells may not be adequate in numerous examples to yield a definitive finding or demonstrate the plausible conduct of the sore. These may require assessment of the general design of the tissue, for which cytology isn't proper. On the off chance that mind boggling, costly, or hazardous treatment is being thought of, at that point the finding ought to if conceivable be affirmed by histology.⁸

Full cytologic understanding requires a decent quality example. A significant minority of tests gathered by experts are unacceptable for full understanding. The strategy gives off an impression of being straightforward, yet reliably getting great quality examples requires practice. In the event that examples are shipped off a research facility for translation, sending more than one is recommended.⁹ In addition, staining and inspecting one of the arrangements in-house assists with checking the nature of the examples taken and make a temporary diagnosis.¹⁰ This requires a decent staining method and a decent quality magnifying lens with a scope of destinations, including oil drenching.

The stains and methods utilized for cytology arrangements in a work on setting are equivalent to those utilized for hematology arrangements. In the course of recent years, great quality fast Romanowsky stains have been produced for cytology and hematology and are frequently utilized by veterinary indicative research facilities. Various brands of fast stain have been grown, so trying various items to see which stain is most appropriate to a training is suggested. Helpless arrangements are not generally the flaw of the assortment strategy; the stain might be the issue. Stains weaken with utilize and require customary restoration. Numerous slides can be changed by restoring a completed stained slide to the stain for more profound shading response, or if over stained, can have some shading eliminated by setting the slide in liquor. Formalin-fixed cytology arrangements should be stained with either H&E or Papanicolaou stain. On the off chance that examples are shipped off a research facility for understanding, the accommodation structure ought to show whether formalin has been added.

2. Materials and Methods

The material for the current investigation contained assessment of 1542 cervical/vaginal smear, taken from patients going to the out-tolerant Department of Obstetric and Gynecology and further shipped off Department of Pathology for cytomorphological examination. The investigation is done in Department of Pathology.

2.1. Inclusion criteria

1. All the females presenting with discharge per vaginum presenting in the outpatient department.

2.2. Exclusion criteria

1. Females draining per vaginum at the hour of method.

The legitimate example assortment is perhaps the main strides in pap smear screening. At any rate one half to 66% of bogus negatives are the aftereffect of patient conditions present at the hour of test assortment and accommodation and the expertise and information on the person who acquires the example. Sufficient cervical cytology tests ought to be gathered and submitted to the lab with proper clinical data. The research center gives criticism on example sufficiency through individual reports, and may choose to give synopsis data with respect to tolerant examining to its customers.

To acquire an ideal Pap example, the accompanying rules have been set up by the Clinical and Laboratory Standards Institute:¹¹

1. Time table an arrangement around fourteen days (10-18 days) after the main day of her last feminine period.
2. Try not to utilize douche 48 hours preceding the test.
3. Try not to utilize tampons, contraception froths, jams or other vaginal creams or vaginal prescriptions for 48 hours before the test.
4. Intercourse isn't suggested the night prior to the arrangement.

3. Results

27 cases of epithelial cell abnormality, out of which 17 cases show Atypical squamous cells of uncertain significance, 1 case show Atypical glandular cells of uncertain significance. 2 cases shows low grade squamous intraepithelial lesions, 2 cases shows high grade squamous intra epithelial lesions. A total of 5 smears show invasive carcinoma cervix.

The Table 2 shows the age distribution of 1542 patients in this series.

The bulk of patient belong to age group 21-40 years 1101 (71.40%).

Maximum cases of LSIL were detected in 41-50 years of age group and maximum cases of HSIL were detected in 31-60 years of age group whereas maximum cases of carcinoma cervix were detected in 51-60 years of age group.

4. Discussion

Our investigation uncovered ASCUS (1.11%) to be the most widely recognized epithelial cell anomaly. Comparable outcomes were gotten in different examinations which likewise presumed that ASCUS to be the most well-known epithelial cell irregularity.¹² ASCUS advances to LSIL,

Table 1: Distribution of epithelial cells abnormalities

Epithelial cell abnormality	No. of cases n=27	Percentage %
Atypical squamous cells of uncertain significance (ASCUS)	17	62.96
Atypical glandular cells of uncertain significance (AGCUS)	1	3.70
LSIL	2	7.41
HSIL	2	7.41
SCC	5	18.52

Table 2: Age distribution of the patients

Age (in years)	Inadequate	Normal smear	Benign lesion	Epithelial cell abnormality	Total cases
15-20	10	84	156	00	250
21-30	23	153	413	7	596
31-40	9	97	391	8	505
41-50	10	23	95	7	135
51-60	2	5	29	5	41
61 and above	4	2	9	00	15
Total	58	364	1093	27	1542

Table 3: Age distribution in relation of LSIL, HSIL and SCC.

Age (in years)	LSIL n=2	%	HSIL n=2	%	SCC n=5	%	Total
15-20	0	-	0	-	0	-	0
21-30	0	-	0	-	0	-	0
31-40	0	-	1	50	1	20	2
41-50	2	100	0	-	1	20	3
51-60	0	-	1	50	3	60	4
61 and above	0	-	0	-	0	-	0

HSIL and SCC. AGUS advances to adenocarcinoma.¹³ The left of patient 1101 (71.40%) have a place with age bunch 21-40 years. Second rate squamous intraepithelial injury (LSIL) was found in 2 cases (0.13%). It was basically in the age bunch 41-50 years.

High evaluation squamous intraepithelial injury (HSIL) was found in 2 cases (0.13%). It was principally in the age bunch 31-60 years. Obtrusive carcinoma cervix was found in 5 cases (0.33%). It was predominantly in the age bunch 51-60 years.

Tufan Nayir et al.¹⁴ In 2015, A sum of 1,032 screened ladies somewhere in the range of 30 and 65 ages inside the standard screening program established the investigation populace. The mean age of the members was 43.8±8.6 (min. 30, worst case scenario. 65) a long time. The level of the members who had recently gone through smears was 40.6%. Epithelial cell changes were found in 26 (2.5%) members, with ASC-US in 18 (1.7%), ASC-H in 2 (0.2%), LSIL in 5 (0.5%) and HSIL in 1 (0.1%). Presumed that the most well-known clinical introduction along with epithelial changes was anomalous vaginal release.

Hemali J. Tailor et al.¹⁵ In 2015, studied a total 1425 patients were screened; there were 1034 (72.56%) abnormal Pap smears, with 354 (24.84%) normal cases and 37

(2.59%) unsatisfactory or inadequate samples. Total 27 (1.89%) cases showed epithelial cell abnormalities. ASCUS was the most commonly found (40.74%) epithelial cell abnormality out of 27 cases. It is concluded that incidence of invasive cervical malignancy can be prevented if Pap screening program is effectively implemented in target population.

5. Conclusion

In the developing countries like India, cervical cytology, due to its low cost and easy availability, is the most important diagnostic tool for the screening of females of reproductive age group. The patient attending the Gynecology Out Patient Department were targeted in this study, so as to screening all the females, even with minor symptoms like discharge per vaginum.

6. Source of Funding

None.

7. Conflict of Interest

None.

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