

# ABNORMAL FINDING OF PAP SMEAR AMONG WOMEN HOSPITAL VISITORS IN CITY OF MOSUL, IRAQ



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## ABSTRACT

**Objective:** The research aims to test the use of the Pap smear screening system to identify precancerous lesions among women in City of Mosul, Iraq.

**Methods:** This prospective study was carried out over 1 year at the Department of Obstetrics and Gynaecology in Mosul Teaching Hospital, city of Mosul, Iraq. We screened 100 sexually active women who were more than 21 years of age. Women with different complaints, including vaginal discharge, blood mixed discharge, foul-smelling discharge, postcoital bleeding, intermenstrual bleeding, postmenopausal bleeding, abdominal pain, infertility, and secondary amenorrhea, were included in this study. The glass slides had been sent for cytopathological review to the pathology department. The laboratory results have been reported by the new Bethesda Cervical Cytology Reporting System 2014. The device divided the lesions narrowly into certain negative ones for intraepithelial neoplasia and with epithelial cell abnormalities (ECA) that involve squamous and glandular cells. Upon pap smear, the patient was treated accordingly.

**Results:** The study had enrolled a total of 100 cases. All of these patients had an abnormal Pap smear finding that fell according to TBS-2014 criteria in the category of Epithelial Cell abnormality. We interviewed all patients in Detail by proforma. The data reported were statistically analyzed and were collected following observations and tests. Among the study subject, the most common abnormal findings (68.9%) were negative findings. Inflammatory constitute (15.4), and Atypical squamous cells of undetermined significance (7%) followed by LSIL (5.9) and HSIL (2.9).

**Conclusion:** Pap smear is an effective method for screening for Cervical Lesions Precancerous and cancerous. Nevertheless, a cervical biopsy must be performed which Is gold standard if any epithelial defects are found to be confirmed in cervical cytology.

## 1. INTRODUCTION

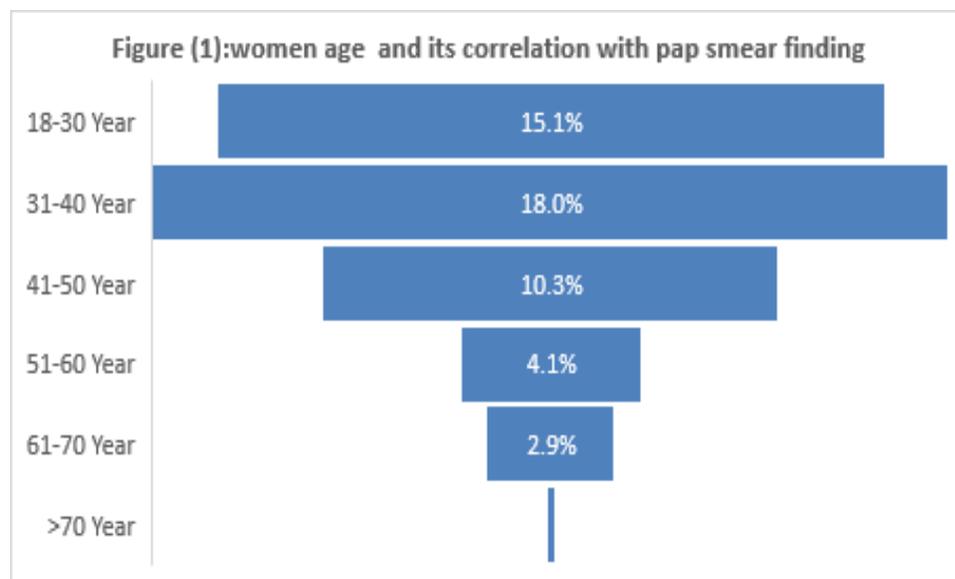
According to World Health Organization (WHO), Cervical cancer kills more than 300,000 women every year, and one woman is diagnosed with the disease every minute, although it is one of the most preventable and curable forms of the disease. [1], [2] In a statement issued to coincide with the World Cancer Awareness Day, the WHO

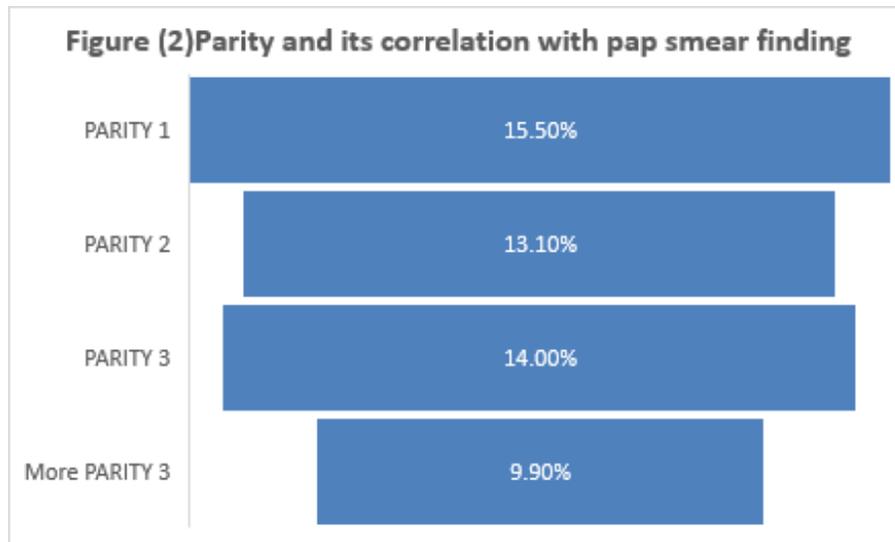
mentioned that nine out of ten women who die from cervical cancer live in poor countries and that if no action is taken, the deaths from the disease will increase by 50% Almost by 2040. [3], [4] Due to the cervical cancer screening programs conducted in many developed countries, incidences of cervical cancer and its mortality have declined over the last fifty years. In developed countries, however, high incidence and mortality rates continue due to a lack of screening programs [5], [7]. According to World Cancer figures, > 80% of all cases of cervical cancer arise in developed and low-resource countries due to a lack of knowledge and difficulty in conducting cytology-based screening programs. [8], [9]. Because of the long pre-invasive stage, cervical cancer is a preventable illness. When robust screening is implemented, early detection and appropriate treatment are possible. A Pap smear test, which is the main screening test for the identification of precancerous intraepithelial cervical neoplasia and the early stage of invasive cervical cancer, may recognize early cervical epithelial changes. [10], [12]

## 2. MATERIALS AND METHODS

This prospective study was carried out over 1 year at the Department of Obstetrics and Gynaecology in Mosul Teaching Hospital, city of Mosul, Iraq. We screened 100 sexually active women who were more than 21 years of age. Women with different complaints, including vaginal discharge, blood-mixed discharge, foul-smelling discharge, postcoital bleeding, intermenstrual bleeding, postmenopausal bleeding, abdominal pain, infertility, and secondary amenorrhea, were included in this study. Those not willing to participate in the study had a frank growth, had been treated for cervical cancer, or were pregnant were excluded from the study. A detailed history was taken using a predetermined proforma that included the chief complaint and the findings of per speculum and vaginal examinations. Written informed consent was obtained from all women. The patients were held in a lithotomy position for a pap smear and inserted a pervaginal bivalve self-retaining Cusco speculum to visualize the cervix. After spinning a wooden Ayre spatula 360 ° the sample was taken from the ectocervix with a cytobrush. The sample was smeared quickly on a labeled glass slide and fixed in a jar with 95 percent ethyl alcohol. The glass slides had been sent for cytopathological review to the pathology department. The laboratory results have been reported by the new Bethesda Cervical Cytology Reporting System 2014. The device divided the lesions narrowly into certain negative ones for intraepithelial neoplasia and with epithelial cell abnormalities (ECA) that involve squamous and glandular cells. Upon pap smear, the patient was treated accordingly.

## 3. RESULTS AND DISCUSSIONS





**Table 1:** Correlation of pap smear findings with signs and symptoms

Symptoms	Negative for malignancy	Inflammation	ASCUS	LSIL	HSIL	TOTAL
Asymptomatic	(6.1%)	(4.8%)	(0.2%)	(0.7%)	(0.2%)	(12%)
Pain abdomen	(11.9%)	(9.3%)	(0.6%)	(1.2%)	(0.1%)	(23.1%)
Vaginal discharge	(23.2%)	(16.2%)	(0.4%)	(1.8%)	(0%)	(41.6%)
Irregular menstrual bleeding	(5.1%)	(3.7%)	(0.3%)	(0.6%)	(0.2%)	(9.9%)
Post-menopausal bleeding	(1%)	(2.8%)	(0.3%)	(0.4%)	(0%)	(4.5%)
Post-coital bleeding	(2.5%)	(1.2%)	(0%)	(0.2%)	(0.2%)	(4.2%)
Urinary Frequency	(1.7%)	(1%)	(0.2%)	(0.3%)	(0%)	(3.2%)
Something coming out of vagina	(0.9%)	(0.3%)	(0.2%)	(0.1%)	(0%)	(1.6%)

The study had enrolled a total of 100 cases. All of these patients had an abnormal Pap smear finding that fell according to TBS-2014 criteria in the category of Epithelial Cell abnormality. We interviewed all patients in Detail by proforma. The data reported were statistically analyzed and were collected following observations and tests. Among the study subject, the most common abnormal findings (68.9%) were negative findings. Inflammatory constitute (15.4), and Atypical squamous cells of undetermined significance (7%) followed by LSIL (5.9) and HSIL (2.9). Cervical cancer is the leading cause of death among women, occurring more frequently in developing and underdeveloped countries [4], [13], [14]. ASCUS counts most abnormalities from a pap smear in our study. In Cox. "ASCUS is not a Diagnosis but rather vague interpretation". The Bethesda System (TBS) has however given a list of diagnostic criteria that have poor reproducibility with large interobserver Variety. [15], [16]. ASCUS can be confused with other entities such as inflammatory changes, air-drying artefactual nuclear enlargement, atypical repair, cell degeneration, and atrophy. [17] While ASCUS in gynecological cytology is the indeterminate or "grey field," it tends to carry a risk of high-grade SIL or more, so patients with this definition should be advised to follow up diligently. [18], [19] Cheung et al. research revealed similar findings [20]. The recommendations adopted by the American Society for Colposcopy and Cervical Pathology (ASCCP) in our gynecological clinics recommend reflex HPV testing for patients with ASCUS or regular pap smear after one year. [21], [23]. The ECA ASCUS was found in our sample in 2.9 % of screened women, LSIL in 5.09 %, and HSIL in 0.48 %, findings comparable to those of Verma's 2.5 % screened women in a survey. [24]. In women screened using the Pap smear test, Padmini et al. [25] also reported ASCUS (8 %), LSIL (5 %), and HSIL (3 %). A study by Nayani and Hendre found higher numbers of LSIL (8.6 percent) and HSIL (3.8 percent) lesions [26]. In our research, 39.2 percent of patients have seen inflammatory changes. Few studies have documented that women with chronic inflammation have a higher risk of developing cervical intraepithelial lesions. After treatment plan with antibiotics Pap smear should be repeated. In the present study, epithelial cell abnormality was seen among 17.11 % of patients with 2 or less parity and 82.89 % with more than 2

parities. A similar finding was found in the study of Banik U et al. that performed in Bangladesh, which observed 17.27 % and 82.73 % respectively. Vaginal discharge (23.2 %) was the most common symptom, accompanied by abdominal pain (11.9 %), and menstrual frequent bleeding (5.1 %). This is consistent with a study of 39.96 % vaginal discharge, 26.63 % pain abdomen, and 12.78 % irregular menstrual bleeding conducted in Uttar Pradesh, India. [11]

#### 4. CONCLUSIONS AND RECOMMENDATIONS

Pap smear is an effective method for screening for Cervical Lesions Precancerous and cancerous. Nevertheless, a cervical biopsy must be performed which is gold standard if any epithelial defects are found to be confirmed in cervical cytology. The report reported a strong link between the cervical and cervical cytology Biopsy: Biopsy. We associated in this analysis with an irregular one Pap smears correlates with the treatment of HP, given HPE as standard gold. We conclude the traditional Paper Smear is a cost-efficient

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#### CONFLICT OF INTEREST

The author have declared that no competing interests exist.

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