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Assessment of Socio-Demographic Characteristics, Clinical Presentation and Peripheral Smear Findings in Cervical Carcinoma Patients

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ABSTRACT

Cervical cancer is the most common cancer among women in developing countries. Cervical cytology often referred to as Pap smear is a proven and reliable screening method. Determine the socio-demographic profile, clinical presentation and peripheral smear findings of cervical cancer patients in out tertiary care hospital. This cross-sectional study was conducted over a period of 18 months. All the women of ≥18 years of age presenting clinical symptoms of cervical carcinoma were enrolled. Socio-demographic data, history, clinical presentation and local examination were recorded in each patient. Pap smear and VIA was done followed by HPE examination. Of 265 cases, majority of them were (79%) were 21-40 year of age group, most of the patients (68.7%) were P1-P3, (75.5%) of women were house wife and 68.3% of study participants were belongs to urban area. The major presenting complaints were abnormal vaginal bleeding (46.8%), Pain in Abdomen (31.7%), White Discharge (24.5%), Itching/Burning/Frequent Micturition (17%) and Menstrual Problems (13.2%). The most common Pap smear finding were healthy vagina (51.3%), followed by Cervix hypertrophied (47.9%). Illiteracy, high parity, non-use of screening methods, late presentation, non-acceptance of referral and lack of communication after referral were some of the major challenges encountered in cervical cancer patients.

INTRODUCTION

The incidence of cancer and related mortality is growing worldwide. Cervical cancer is the most common cause of cancer deaths among women in developing countries, with India having the highest age standardized incidence of cervical cancer in South Asia[1]. In addition, there is lack of effective screening programs in low and middle income countries[1-2]. Cervical carcinoma is the 10th most common malignancy worldwide and is the ninth leading cause of cancer-related death in women according to the latest GLOBOCAN data 2020[4]. According to the latest World Health Organization (WHO) data, there are 570,000 new cases of cervical cancer diagnosed worldwide and 311,000 cancer-related deaths[5]. Majority of the cases of carcinoma cervix present in late stages (80%) with the most common stage being Stage III in moderately differentiated (41.6%) and in poorly differentiated (70%) types[3]. Human papilloma Virus (HPV) infection is considered the most common cause of cervical carcinoma in developing nations. It is shown that types 16, 18, 31, 33 and 45 are most frequently associated with cervical carcinoma[6]. There are numerous risk factors for cervical carcinoma which are young age at first intercourse (<16years), Human papilloma virus infection (HPV), multiple sexual partners, cigarette smoking, race, high parity and low socio-economic status. Age interval 35-44 years is at high risk of CIN III and invasive cancer of the cervix[7]. The high prevalence of HPV infection in association with the lack of effective screening and treatment of this infection leads to the increased burden of cervical carcinoma[6]. Human papilloma virus is small, circular double stranded DNA viruses that belong to the papillomaviridae family. Experimental studies have identified nearly 200 types of human papilloma viruses, of those more than 40 have been identified in the genital tract and is classified into low risk and high risk categories based on the association with invasive cervical carcinoma[8]. Various treatment modalities are available for the treatment of patients with carcinoma cervix. These include radiotherapy (RT), chemotherapy, and surgical procedures. Cervical cytology often referred to as Pap smear is a well-known and proven method for detection of premalignant cervical lesions[9]. Screening of high-grade cervical intraepithelial neoplasia aids in early detection and their effective treatment which constitutes the most effective and widely used strategy to prevent cervical carcinoma throughout the world[10]. A close observation on the social behavior of our society reveals that most of the women in our country have their marriages at very early part of their life leading to early commencement of sexual activity and poor sexual hygiene which are considered to be important etiological factors for cervical carcinoma[11]. Women are afflicted at an age in life when they are critical to social and economic stability[12].

Aim of this Study: This study aimed to asses socio-demographic profile, risk factors, establish the clinical presentation and Pap smear findings of suspected cervical cancer patients.

MATERIALS AND METHODS

After approval from the institutional ethical review committee, this cross sectional observational study was carried out in the Department of Obstetrics and Gynaecology, Kamla Raja and associated group of Hospitals, central India from January 2021 to June 2022 (18 months).

A total number of 265 patients presented to the outpatient department of obstetrics and Gynecology, during the study period were enrolled in the study.

All the women of ≥18 years of age, sexually active, with contact bleeding, cervical erosions, hypertrophied cervix on per speculum examination with the duration of symptoms >1 month and women willing for the study were included.

Pregnant females (assessed on ultrasonography), women who already had hysterectomy or treatment for cervical pre cancer or cancer in the past and women not willing for the study were excluded from the study.

A detailed socio-demographic data such as age, residential status, socio-economic status, education status, occupation, marital status and parity were recorded from each patient.

Clinical sign and symptoms were analysed and per speculum examination was done. Vaginal discharge to be removed with a cotton swab than the visual examination of cervix was done.

The results of peripheral smear or Pap smear were analysed by trained pathologist and reported on a pre designed proforma.

Statistical Analysis: Data will be collected compiled and analyzed through computer software SPSS 22. The various statistical tests as percentage proportions and chi square will be applied. P value <0.05 was considered as statistically significant.

RESULTS AND DISCUSSIONS

A total of 265 women suspected with cervical cancer were enrolled and analysed in the present study. The majority of study participants (79%) were 21-40 year of age group with mean age of 34.39 years. All study participants were married. Among parity wise distribution most of the participant (68.7%) were P1-P3.The distribution of study participants according

occupation, maximum number (75.5%) of women were house wife. 68.3% of study participants were belongs to urban area and 31.7% were belongs to rural area [Table:1].

Table 1: Socio-Demographic Characteristics among this Study Groups

Socio-demographic characteristics		Frequency	Percentage
Age (years)	≤20 Year	8	3%
	21-30 Year	103	39%
	31-40 year	107	40%
	>40 Year	47	18%
	Age (Mean±SD)	34.39±9.46	
Marital Status	Married	265	100%
	Unmarried	0	0%
Parity	P0	34	12.8%
	P1-P3	182	68.7%
	P4 or more	49	18.5%
Occupation	House wife	200	75.5%
	Laborer	29	10.9%
	Health care worker	21	7.9%
	Bank employee	9	3.4%
	Teacher	6	2.3%
Residential Status	Rural	84	31.7%
	Urban	181	68.3%

All the participants (100%) in the study were having single sexual partners. None of the study participants were having history of carcinoma cervix. Only 22 (8.3%) study participants had heard about cervical cancer in the study. None of the study participants had undergone the PAP's smear test and HPV test before the study.

Table 2: Predisposing Factors of Cervical Cancer Among Study Subjects

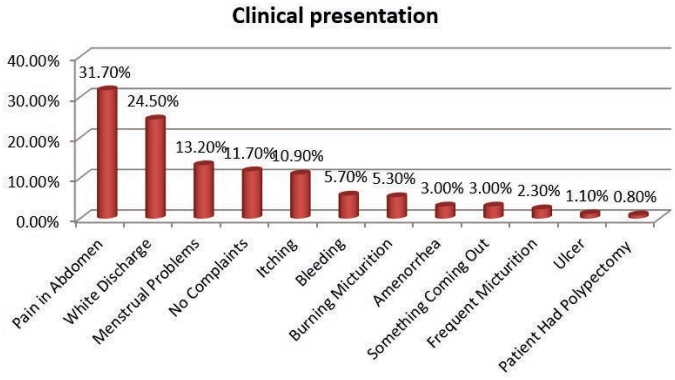
		Frequency	Percentage
Number of sexual partners	One	265	100%
	>one	0	0%
Family History of Carcinoma Cervix	No	265	100%
	Yes	0	0%
Awareness about cancer cervix	No	243	91.7%
	Yes	22	8.3%
PAP's test done before	No	265	100%
	Yes	0	0%
HPV test done before	No	265	100%
	Yes	0	0%

The most common Pap smear finding were healthy vagina (51.3%), followed by Cervix hypertrophied (47.9%), Ectropion (12.8%) and abnormal vaginal discharges (46.79%).

Table 3: P/S Findings of Study Participants

P/S finding		Frequency	Percentage
Healthy vagina		136	51.32%
Cervix hypertrophied		127	47.92%
Ectropion		34	12.83%
Polyp		5	1.89%
Prolapse		4	1.51%
Cervicitis		1	0.38%
Abnormal vaginal Discharge	Mucoid Discharge	52	19.62%
	Curdy White Discharge	34	12.83%
	Greenish Frothy Discharge	16	6.04%
	White Discharge	9	3.40%
	Purulent Discharge	5	1.89%
	Thin White Discharge	4	1.51%
	Brown Discharge	2	0.76%
	Yellowish Discharge	1	0.38%
	Thick White Discharge	1	0.38%
	Total	124	46.79%

The common presenting symptoms among participants were Pain in Abdomen (31.7%), White Discharge (24.5%), Itching/Burning/Frequent Micturition (17%) and Menstrual Problems (13.2%) [Graph: 1].



Graph 1: Presenting Complaints of Study Participants

Cervical cancer has continued to have a devastating impact on women's health globally and particularly in developing countries like India where it has remained the most common cancer of the female genital tract. Recurrence of cervical cancer occurs regionally or as metastatic disease, usually within three years of treatment. Therefore, Regular follow-up with a gynecologist-oncologist, low-risk women with early-stage disease may help in proper management of the cervical carcinoma[13].

In our study, majority of the participants belongs to 21-40 year of age group with mean age of 34.39 years, similar to findings of Ibrahim[14] and Bhattacharya[15].

Multiparty is an important causal risk factor for the cervical cancer, in this study most of them participants were parity 1-3, our results comparable with the Jennifer[16] and S. Anitha[17]. These findings further affirm that cervical cancer afflicts women at a time when they are vital to social and economic stability6 and that grand multiparty is an important causal risk factor.

Majority of the participants belong to urban area in the current study, accordance with the Suman[18].

One of the major challenges and risk factors found in the study is high rate of illiteracy or low educational attainment, consistent observation shown by Eze[19] and Oguntayo[20]. A low education level increases the risk of invasive cervical cancers and illiteracy has been shown to greatly increase this risk.

In India, Thulaseedharan[21] also found that illiterate women of increasing age and having many pregnancies were at significantly increased risk of cervical cancer.

Poverty, early marriage, polygamy, grand multiparty, and illiteracy have all been found to be significantly associated with increased risk of occurrence of cervical cancer and could contribute to the high incidence of late presentation[22].

The most common presenting symptoms among participants were pain in abdomen, white discharge, itching/burning/frequent micturation and menstrual problems, our findings correlate with the other studies Uma Singh[23], Anorlu[24] and Hashmi[25]. Abnormal vaginal bleeding is an important sign in cervical cancer. Abnormal vaginal bleeding normally occurs as post-coital, inter-menstrual, or postmenopausal bleeding. Should every case of abnormal vaginal bleeding be promptly investigated, cervical cancers would be diagnosed in early stages, at a time when there could be hopes of cure.

In present study, none of the study participants were having history of carcinoma cervix, undergone PEP's smear or HPV test before and had heard about cervical cancer in the study, in agreement with the Ijaiya[26].

We have observed the Pap smear findings among that healthy vagina was the most common followed by Cervix hypertrophied, constant with the our results., David[27] and Pushpalatha[28].

CONCLUSION

The risk factors for cervical cancer and management challenges identified in this study include middle age group, high parity, early marriages, poverty, illiteracy, low educational attainment, low cervical screening uptake, late presentation and lack of a dedicated gynecological oncology unit and loss to follow-up. Most common clinical presentation of cervical cancer patients was white discharge. Sustained health education and awareness creation about the risk factors may improve uptake of cervical screening and reduces mortality due to cervical cancer.

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