



ORIGINAL RESEARCH PAPER

Pathology

HISTOPATHOLOGICAL STUDY OF PREMALIGNANT AND MALIGNANT LESIONS OF CERVIX

KEY WORDS: Low grade squamous intraepithelial neoplasia, high grade squamous intraepithelial neoplasia, squamous cell carcinoma cervix, adenocarcinoma.

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ABSTRACT

INTRODUCTION- As per Globocan 2012 Database, cervical cancer is common cancer in women with an estimated 528,000 new cases and 266,000 deaths, accounting for 7.5% of all female cancer deaths worldwide.¹

AIMS AND OBJECTIVES- To detect the incidence of premalignant and malignant cervical lesions and evaluate various demographic and etiological factors in cervical lesions.

MATERIAL AND METHODS- Present study was done in 150 women in Shyam Shah Medical College Rewa in duration of 1 year from 1st april 2017 to 31st march 2018.

RESULT- Incidence of premalignant lesion was 85.33% and malignant lesion was 14.66%. In premalignant, incidence of LSIL was 59.37% and HSIL was 40.62%. In malignant, incidence of squamous cell carcinoma was 90.9% followed by adenocarcinoma 9.09%. Maximum cases were of age group 51-60 years. 62% case belongs to lower socioeconomic status. 52.66% cases were illiterate. 56% cases never used any contraceptive methods.

CONCLUSION- There is an urgent need for regular and effective cervical screening program and HPV vaccination should be included in universal immunization program in India.

INTRODUCTION

"Cancer of the uterine cervix is now regarded as a preventable disease" – this statement by World Health Organization cancer committee in 1963 was a milestone in the history of cervical cancer. As per Globocan 2012 Database, cervical cancer is common cancer in women with an estimated 528,000 new cases and 266,000 deaths, accounting for 7.5% of all female cancer deaths worldwide.¹

Carcinoma cervix is the most common cancer in Indian women and accounts for 20% of all malignant tumors in the females. Squamous cell carcinoma (SCC) account for 75-85%, adenocarcinoma 15-25%, and adenosquamous carcinomas 3-5% of cervical cancers.²

AIMS AND OBJECTIVES- To detect the incidence of premalignant and malignant cervical lesions.
To evaluate various demographic and etiological factors in cervical lesions.

METHODOLOGY

Samples were received with proper numbering, gross cutting was done, then processing and staining by H&E staining. Each slides were examined under microscope.

RESULT- Study period was from 1st April 2017 to 31st March 2018, total 150 cases were studied in the Department of Pathology, Shyam Shah Medical College, Rewa, MP. The observation and results are as follows.

TABLE 1 – AGE WISE DISTRIBUTION

AGE GROUP	PREMALIGNANT (128)		MALIGNANT(22)		TOTAL	
	No.	%	No.	%	No.	%
20-30	06	4.6	0	0	06	4
31-40	15	11.7	01	4.5	16	10.6
41-50	48	37.5	02	9	50	33.3
51-60	46	35.9	15	68.18	61	40.6
61-70	10	7.8	03	13.6	13	8.66
>70	03	2.3	01	4.5	04	2.6

Maximum number of cases were of age group 51-60 years, followed by age group 41-50 years.

In premalignant lesions, maximum cases were 37.5 % in age group of 41-50 years. In malignant lesions, maximum cases were 68.18 % in age group 51-60 years.

GRAPH 1 - AGE WISE DISTRIBUTION

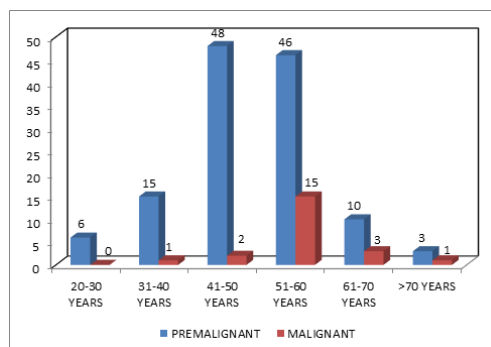


TABLE 2- SOCIO- ECONOMIC STATUS WISE DISTRIBUTION OF CASES

CLASS	NUMBER	PERCENTAGE
Lower	93	62%
Middle	37	24.66%
Upper	20	13.33%

Maximum cases were 62 % from lower class according to Kuppaswamy classification.

GRAPH 2

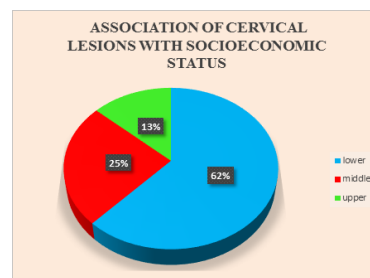


TABLE 3 - EDUCATIONAL STATUS WISE DISTRIBUTION OF CASES

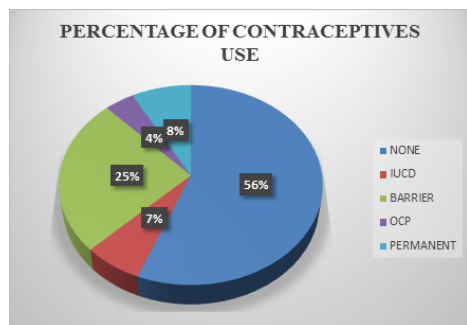
EDUCATION STATUS	NUMBER	PERCENTAGE
Illiterate	79	52.66%
Primary education ($\leq 5^{\text{th}}$ std)	48	32%
Secondary education ($\leq 12^{\text{th}}$ std)	17	11.33%
Graduate	06	04%

52.66 % cases were illiterate.

TABLE 4 – CONTRACEPTIVES USE

METHOD	NUMBER	PERCENTAGE
NONE	84	56%
IUCD	10	6.6%
BARRIER	38	25.33%
OCP	06	04%
PERMANENT	12	08%

56 % cases never used any type of contraceptive methods. Barrier method was used by 25.33 percent cases, followed by permanent method of 8 percent, IUCD by 6.6 percent cases and oral contraceptives by 4 percent cases.

GRAPH 4**TABLE 5- TYPE OF LESION**

TYPE	NUMBER (n=150)	PERCENTAGE
PREMALIGNANT	128	85.33%
MALIGNANT	22	14.66%

Premalignant lesions were 85.33% and malignant lesions were 14.66%.

TABLE 6 - TYPES OF PREMALIGNANT

TYPE	NUMBER (n=128)	PERCENTAGE
LSIL	76	59.37%
HSIL	52	40.62%

TABLE 7– TYPES OF MALIGNANT

TYPE	NO.	Percentage
SQUAMOUS CELL CARCINOMA	20	90.9
ADENOCARCINOMA	02	9.09%

DISCUSSION

In present study, 40.6% women belonged to the age group of 51-60 years. In a study by Bharti Bharani (2004)³ at Indore, the mean age of patients was 39.93 years. In a study conducted by G.S. Durdi (2009)⁴ at Belgaum, mean age of patients was 36 years.

62% belongs to low socioeconomic status. In the study by Mridul Gehlot (2001)⁵ 60% study group were of low socioeconomic status. In a study by Twaha Mutuaba et al (2008)⁶, 47% cases belonged to low SES. In a study by Vaidya A (2003)⁷, 80% of CIN1 and 50% of CIN2 were from low SES.

In present study, 52.66% were illiterate. In the study by Surendra S. Shastri et al (2005)⁸ at Mumbai, most of the women had some level of education, attended primary school (17.4%), middle school (18.8%), high school (24.5%) and 27.3% were graduates. In the study by Patti E. Gravitt et al (2010)⁹ Andhra Pradesh, 69.4% had no formal education.

In present study, 56% cases were not using any contraceptive methods. A study by KalpanaYadav et al¹⁰(2013), non users for any contraceptive methods were maximum involved with CIN i.e. 34.1%.

In present study, out of 500 cases, 128 (85.33%) cases were premalignant which includes 59.37% of LSIL and 40.62% cases of HSIL. Maximum cases were of LSIL.

TABLE-8 COMPARISON OF TYPES OF PREMALIGNANT

S. No.	Study	Year	Maximum cases	% of cases
1	SarlaAgrawal et al19	2014	CIN I	34.9%
3	Gaurav Agrawal et al20	2018	LSIL	69.69%
4	Present study	2018	LSIL	59.37%

In present study, out of 150 cases, 22 (14.66%) cases were malignant lesion. Including 20 (90.9%) cases of squamous cell carcinoma and 02(9%) cases of adenocarcinoma.

TABLE 9- COMPARISON OF TYPES OF MALIGNANT LESIONS

S. No	Study	Year	Maximum cases	% of Cases
1	SarlaAgrawal et al19	2014	Squamous cell carcinoma	92.5%
2	Mohammed HM Ali et al21	2015	Squamous cell carcinoma	71.4%
3	EngbangNdamba Jean Paul et al22	2016	Squamous cell carcinoma	81.18%
4	Laxmi V et al23	2016	Squamous cell carcinoma	85.5%
5	Present study	2018	Squamous cell carcinoma	90.9%

CONCLUSION

We conclude that there is an urgent need for regular and effective cervical screening program and HPV vaccination should be included in universal immunization program in India. Increasing literacy rate, personal hygiene, socioeconomic strata, use of contraceptive measures to reduce parity will be highly instrumental. Most effective way to implement these policies to women is to train **Anganwadi workers**, as they are the best person who deal with each and every person in all the peripheral areas.

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