CLINICO-PATHOLOGICAL ANALYSIS OF CANCER CERVIX IN TERTIARY CARE CENTRE

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ABSTRACT: BACKGROUND:- Cancer cervix is one of the most common malignancies in women. Worldwide cervical cancer is the third most common diagnosed cancer in women in both incidence & mortality. **AIMS & OBJECTIVES :** Clinicopathological analysis of cervical cancer in patients admitted in tertiary care centre. **MATERIAL & METHODS:** Our study included 180 cases of cancer cervix admitted in Sultania Zanana Hospital, Bhopal from the period of 1st may 2009 to 30th april 2010. Clinical details including complaints at first visit, thorough general and local examination and brief systemic examination was done. Cervical biopsy was taken and clinicopathological analysis was done. **RESULTS:** Out of 180 cases 96.12% women were married before the age of 18 years. The commonest presenting symptoms found were, irregular bleeding p/v, white discharge & pain i.e. 75.56% , 51%, 57.78% respectively. 87.22% of cases presented in advanced stages. **Conclusion :-** Most cases were diagnosed in advanced stages at a relatively younger age. Cancer cervix can be prevented as there are various screening modalities.

INTRODUCTION: Cancer is the most dreaded disease of mankind and is a global problem. Carcinoma of cervix is one of the most common malignancies in women. Carcinoma cervix is the commonest malignancy in women in India with an incidence of 9-44 per 100, 000 women. In India, most patients present in advanced stages and the prognosis is directly related to the stage at time of presentation.

The crude incidence rate of cancer cervix in Bhopal is 12.0/100000. The incidence of cancer cervix is substantially higher among women in low socio-economic classes, in women who had started first intercourse at an early age, has history of sexual promiscuity, increased number of pregnancies, poor hygiene. Current studies suggest that almost 50% of intraepithelial neoplasia and 90% of invasive cancer show evidence of HPV infection (subtype 16, 18 less commonly 6, 8). In India HPV 16 is mostly associated with cancer cervix.

The aim of this study is to assess the etiology, risk factors, stage at the time of presentation and clinicopathological analysis in population attending Sultania Zanana Hospital, Bhopal.

MATERIAL & METHODS: The study included 180 cases of cancer cervix admitted in Sultania Zanana Hospital, Bhopal from the period of 1 May 2009 to April 2010. Clinical details including age, age at marriage, contraception, smoking, complaints at first visit and examination findings were recorded. In all the cases family history of cancer cervix or any other cancer was taken. A thorough general examination, brief systemic examination and detailed local examination i. e. per speculum and per vaginum examination was done in each patient.

The inclusion criteria were women presenting with complaint of vaginal discharge, irregular bleeding, postcoital bleeding, post menopausal bleeding, pain in lower abdomen, pain in back or

radiating pain. On examination women who had suspicious looking cervix, hard, irregular, hypertrophied cervix, bleeds on touch, had fungating, friable growth or had ulcerative or excavating growth were included.

Cases of chronic cervicitis, CIN, DUB, benign cervical lesion, fibroid, endometrial cancer & senile vaginitis were excluded.

The patients of reproductive and perimenopausal age groups who presented with above complaints were studied, staging of cancer cervix was done and cervical biopsy was taken to confirm histopathologically.

RESULTS: The study included 180 cases of cancer cervix admitted in Sultania Zanana Hospital, Bhopal from the period of 1 May 2009 to April 2010. It was observed that maximum cases were in the age group of 40-59 year (53.34%) as shown in table no. 1, were illiterate and belonged to lower socioeconomic status i. e. 86.11% & 97.22% respectively. 87.88% cases belonged to Hindu religion, and rest were of Muslim religion. As shown in table no. 2, maximum cases belonged to stage-2 B and stage -3B i. e. 35.56% & 31.1% respectively. 96.11% cases were of squamous cell carcinoma and 3.89% of adenocarcinoma. As in table no. 3, squamous cell carcinomas 58.96% were of moderately differentiated subtype. Table no. 4 shows that most of the cases presented with multiple complaints, predominantly with irregular bleeding per vaginum in 75.56%, pain in lower abdomen or backache in 57.78% and white discharge in 51.11%. Of the total 180 cases of cancer cervix there were 30 cases (16.67%) presented in late stage with various complications. Among these 30 cases, anemia was found in 53.33%, pyometra in 20%, vesicovaginal fistula in 16.67% & distant metastasis in 3.33%.

96.12% women were married before they attained the age of 18 yrs. 60% of cases had their first child in the age group of 15-17 yrs. 69.45% cases were with parity higher than 3, only 30% had 1-3 children. One woman was nulliparous. 55.56% women were tobacco user either smoking, chewing gutkha or khaini and 44.44% were non-tobacco user.

DISCUSSION: In India cervical cancer remains the leading cause of cancer deaths among women, making cervical cancer the number one cause of mortality from cancer in females. In India every year about 100,000 develop cervical cancer and it constitutes about 16% of the world's annual incidence^{1,2}. While in U. K this is 9.1/100,000 per year (2005) and mortality is 3.1/100,000 per year. The principal reason for this difference is related to difference in access and availability of cancer screening services, multiple factors like early marriage, early child bearing, multiparity leading to frequent trauma to the cervix, poor socioeconomic status causing nutritional deficiencies, unhygienic conditions as well as unawareness towards health conscious.

In our study maximum cases were of age group 40-59year. Similar incidence has been reported by Uzoigwe & Seleye 2004, Ijaiya 2004, Olatunji & Sule- Odue 2005, Adewuyi 2008^{3, 4, 5, 6}. Sultania Zanana Hospital is a tertiary care centre where patients from rural and urban area are pooled, mainly from the low socio-economic status. In present study rural and urban distribution of cases shows that 55.56% were from rural area and 44.44% were from urban area. 55.56% women were tobacco user. Various studies Burger et al 1993, Runowicz et al 1997 showed similar association and stated that smoking cause genetic damage or immune suppression leading to HPV lesion and cervical cancer^{7,8}.

84.78% of cases were Hindu and only 18.22% were Muslim. The lower incidence in Muslim female inspite of earlier age of consumption of marriage and high parity and low socioeconomic status, implies presence of some protective factors operating in them such as better nutrition and genital hygiene (as circumcision provide better penile hygiene, a ritual found in Muslim male as stated in WHO report 1986)⁹. 96.12% women were married before the age of 18 yrs. Similar results are noticed in other studies, Dasgupta et al 2002¹⁰. Early age at marriage indicate an early exposure to sexual activities, longer duration of married life greater opportunities for sexual activities, early pregnancy and increased chances of becoming pregnant all these being associated with the disease.

The commonest presenting symptoms found in our study were irregular bleeding per vaginum, white discharge and pain. Complaints of post coital bleeding, bowel and bladder symptoms, loss of appetite were also noticed. A study conducted in Nnewi, South East Nigeria by Ikechebelu 2010 observed most common presenting symptoms in cases of cancer cervix were vaginal bleeding, post coital bleeding and vaginal discharge i. e. 84%, 64%, 72% respectively¹¹.

In the present study majority 87.22% patients presented in advanced stages, maximum patients belong to stage-2 B and stage -3B which is in agreement with studies performed by Kaushik Roy 2000¹², Ikechebelu 2010¹¹. This however is in contrast to the findings of Shingleton who reported 10.8% case with stage-3¹³.

Analysis of histopathological pattern of cervical carcinoma shows predominantly squamous cell type with varying degree of differentiation, majority being moderately differentiated. Similar results were observed by Ikechebelu et al. 2010⁸

SUMMARY AND CONCLUSION: The present study revealed that cancer cervix is the most common malignancy and the patients presented at advanced stages of the disease, most of them were from low socioeconomic status, illiterate, belonging to rural area and risk factors like early marriage, early child birth, high parity and poor genital hygiene are prevalent in the population studied. As in our study maximum cases belonged to age group 40 -59 yrs, thus, there is a need to screen all sexually active women >35 years for cancer cervix, improving their nutrition and genital hygiene and creating awareness regarding cancer cervix.

Cancer cervix is preventable to large extent as it takes a decade or more to progress from preinvasive to invasive lesion. The three pronged approach i. e. education, primary prevention (vaccination) and secondary prevention (screening and treatment) can be applied to cancer cervix effectively. Health administration should plan and organize suitable programmes to impart health education for improving the awareness regarding cervical cancer. HPV vaccine immunization can be started as pilot project.

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S. NO	Age Group	No. of patients	Percentage
1.	30 – 39 yrs	56	31. 11 %
2.	40 - 49 yrs	48	26. 67 %
3.	50 – 59 yrs	48	26. 67 %
4.	60 - > 69 yrs	28	15. 55 %

TABLE NO. 1: AGE WISE DISTRIBUTION

S. NO.	Stage	No. of patients	Percentage
1.	Stage I A	0	0
2.	Stage I B	23	12. 78%
3.	Stage IIA	11	6. 11%
4.	Stage IIB	64	35. 56%
5.	Stage IIIA	08	4. 44%
6.	Stage IIIB	56	31. 11%
7.	Stage IVA	13	7. 22%
8.	Stage IVB	05	2. 78%

TABLE NO. 2: STAGE WISE DISTRIBUTION

S. No.	Histological Type	No. of patients	Percentage
A. Squamous cell carcinoma		173	
a.	Well Differentiated	51	29.48%
b.	Moderately differentiated	102	58.96%
c.	Poorly differentiated	20	11.56%
B. Adeno carcinoma		07	
a.	Well Differentiated	04	54.14%
b.	Moderately differentiated	0	0
c.	Poorly differentiated	03	42.86%

TABLE NO. 3: HISTOPATHOLOGY IN RESPECT TO DIFFRENTIATION

S. No.	Symptoms	No. of Patients	Percentage
1.	Post coital bleeding	28	15.55%
2.	White discharge P/V	92	51.11%
3.	Irregular bleeding PV	136	75.56%
4.	Pain (lower back, lower abdomen, or radiating pain)	104	57.78%
5.	Urinary symptoms	12	6.67%

TABLE NO. 4: COMPLAINTS AT FIRST PRESENTATION

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