



STUDY OF PATIENTS OF CANCER CERVIX: A TERTIARY CARE CENTRE EXPERIENCE IN BIHAR STATE

Obstetrics & Gynaecology

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ABSTRACT

BACKGROUND: Cancer cervix is a leading cause of morbidity and mortality in women all over the world particularly India. The socio-demographic background and lack of screening services is the major contributor in our country.

AIMS AND OBJECTIVES: To study the socio-demographic background, clinical, histopathological presentation and stage of women with cervical cancer.

MATERIAL AND METHODS: This was a retrospective study of 192 cases of cervical cancer presenting to department of Obstetrics and gynaecology of a tertiary care centre of Bihar for the first time and who underwent histopathological examination by cervical biopsy between February 2018 to January 2020.

RESULTS: The age group to be affected maximum was 40-59 years (59.38%). 59.89% of the affected had parity (P4+0 to P6+0). Maximum patients belonged to hindu community (96.87%). 92% came from rural areas. 21.12% women came after multiple visits to various cancer centres in the district. The most common symptom was bleeding per vaginum (83.33%). The most common mode of presentation of cancer was in form of exophytic growth (65.10%). The most common stage of presentation was stage III B (51.56%). The most common histopathological type was squamous cell carcinoma (92.19%). Maximum patients (96.35%) belonged to stage IIB and above so were referred to oncology department for chemoradiation.

CONCLUSION: Cancer of cervix is mostly presented late in our OPDs so, primary and secondary prevention plays key role in prevention and early detection.

KEYWORDS

Cancer cervix, cervical biopsy, Squamous cell carcinoma, adenocarcinoma

INTRODUCTION

In 2018, approximately 5,70,000 women developed cervical cancer and 3,11,000 women died from it, corresponding to an all-ages ASIR of 13.1 per 1,00,000 women-years and ASMR of 6.9 per 1,00,000. Worldwide, cervical cancer was the fourth most common cancer among women. Approximately 84% of all cervical cancers and 88% of all deaths caused by cervical cancer occurred in lower-resource countries. China was the country with the highest number of cases (1,06,000), whereas India was the country with the highest estimated number of cervical cancer deaths (60,000). China and India together contributed 35% to the global burden of cervical cancer cases and deaths.¹

Cervical cancer is the second most common cancer among Indian women (As per Globocan 2018). It is a preventable disease as it has a well-defined, long pre-malignant phase which can be detected by regular screening tests and follow up. Unfortunately, most women in India are not aware about the screening.

Consistent evidence indicates that the licensed bivalent and quadrivalent HPV vaccines containing HPV16 and HPV18 antigens protect with high efficacy against infection and precancerous cervical lesions associated with these types when individuals are not yet exposed.²

WHO plans to eliminate cervical cancer as a public health problem in the 21st century by reducing the global annual age-standardised incidence to 4 per 100,000 women.³ Primary prevention (prophylactic HPV vaccination) and secondary prevention (screening with validated HPV assays and treatment of cervical precancerous lesions) have been shown to be effective.

By vaccinating 90% of all girls by the age of 15 years, screening 70% of women twice in a life time (at ages 35 years and 45 years) with a precision test (ie, a validated HPV assay), and treating 90% of precancerous cervical lesions detected during screening, this WHO goal might become possible to reach.⁴

Hence, seeing this burden of disease contribution by India this study was done to study about the cases of cancer cervix.

MATERIAL AND METHODS

Study type

This was a retrospective study of 192 cases of cervical cancer presenting to department of Obstetrics and gynaecology of a tertiary

care centre of Bihar for the first time and who underwent histopathological examination by cervical biopsy.

Study period

February 2018 to January 2020

Method of study

The hospital records of cases of cancer cervix were studied for history, examination findings, clinical staging along with further plan of management. These patients had then undergone cervical biopsy for confirmation of diagnosis and type of cancer. So, Operation theatre registers were assessed to gather these results where these are noted in opd follow up retrospectively.

Statistical analysis

Microsoft excel

RESULTS

The age group to be affected maximum was 40-59 years (59.38%). (Table 1).

Table 1: Age group of patients of cancer cervix

Age group	n =192	percentage
20-29	6	3.12
30-39	36	18.75
40-49	48	25
50-59	66	34.38
60-69	36	18.75

The most common parity to be affected was P4+0 to P6+0 (59.89%). (Table 2)

Table 2: Parity of patients of cancer cervix

Parity	n =192	percentage
P0+0	3	1.57
<= P3+0	57	29.69
P4+0 – P6+0	115	59.89
>= P7+0	17	8.85

Maximum patients (186) who were affected belonged to hindu community (96.875%) and only 6 patients belonged to muslim community (3.125%).

92% came from rural and remote areas. Out of which nearly 69%

travelled from areas requiring 7-8 hours from our tertiary care centre. 21.12% women came after multiple referrals and multiple visits to various cancer centres in the district.

The most common symptom of presentation was in form of Bleeding per vaginum in form of either irregular/continuous bleeding pv, post coital bleeding or post menopausal bleeding. (Table 3)

Table 3: Symptomatic profile and surgical history of patients of cancer cervix

Symptom	number	percentage
Bleeding pv	160	83.33
Discharge pv	25	13.03
Pain abdomen/back pain	5	2.60
Others	2	1.04
Post hysterectomy at remote areas	42	21.87
Intact uterus	150	78.13

The most common mode of presentation of cancer was in form of exophytic cauliflower like growth which bled on touch.(Table 4)

Table 4: Type of growth of cancer in patients of cancer cervix

Type	n =192	percentage
Exophytic	125	65.10
Endocervical/endophytic	37	19.28
Ulceroinfiltrative	30	15.62
Vault growth was present in	42	21.87

The most common stage of presentation was stage III B(51.56%). (Table 5)

Table 5: Stage of presentation of cancer cervix.

Stage of ca cervix	n =192	percentage
IB 1	1	0.53
IB 2	3	1.59
IIA	3	1.59
IIB	80	41.67
IIIA	2	1.05
IIIB	99	51.56
IVA	3	1.59
IVB	1	0.53

The most common histopathological type was squamous cell carcinoma. (Table 6)

Table 6: Histopathological types of cancer cervix.

Type	n =192	percentage
Squamous cell carcinoma	177	92.19
adenocarcinoma	10	5.21
adenosquamous	2	1.04
Not known	3	1.56

The maximum patients belonged to stage IIB and above so were referred to oncology department for chemoradiation. Rest were advised for hysterectomy.

DISCUSSION

Cervical cancer tends to occur during midlife. It is most frequently diagnosed in women between the ages of 35 and 44. It rarely affects women under age 20. But in women over 65, cancer typically occurs in women who were not receiving regular screening.⁵ The age group to be affected maximum in my study was 50-59 years (34.38%) followed by 40-49 years(25%) making a cumulative of 59.38% in 40-59 years women. Study by Chauhan R et al also show 50-59 years as most common affected age group in 42% cases.⁶ Other studies also show 40-59 years as cumulative leading group.^{7,8} A significant number of women were diagnosed at 60-69 years(36%) in my study. This focuses on need to screen even women greater than 65 years of age group as they may be presenting late for the first time.

Several mechanisms have been suggested to explain the increased risk for precursor lesions or cervical cancer in relation to pregnancy and childbirth, for example, increased hormone levels and impaired immune response.⁹ It has been shown that the transformation zone remains on the ectocervix for longer in multiparous women and thereby facilitates direct exposure to HPV and potential cofactors.¹⁰

Local tissue damage during vaginal delivery or cellular oxidative stress with increased likelihood of DNA damage and HPV integration may be possible mechanisms.^{11,12} The most common parity to be affected in my study was (P4+0 to P6+0). This was similar to study by Kumari A et al.⁸

Maximum patients who were affected belonged to hindu community (96.875%). Sharma A et al also found hindus to be most commonly affected(88.5%).¹³ Only 6 patients belonged to muslim community (3.125%) possibly due protective effect of circumcision of their partners. Male circumcision is associated with a reduced risk in women of being infected by oncogenic human papillomavirus (HPV) genotypes and STIs and of contracting cervical cancer.¹⁴

92% came from rural and remote areas. Out of which nearly 69% travelled from areas requiring 7-8 hours from our tertiary care centre. 21.12% women came after multiple referrals and multiple visits to various cancer centres in the district. 89% belonged to rural community in study by Chauhan R et al.⁶ This makes the time lapse from initiation of symptoms to diagnosis even far fetched due to unawareness, illiteracy, lack of screening facilities at villages.

The most common symptom of presentation was in form of Bleeding per vaginum(83.33%) followed by discharge pv(13.03%) and pain abdomen/back pain(2.60%). Study done by Kaur M et al had similar finding as bleeding pv in 79.1% cases, discharge in 8.3% and pain abdomen in 4.1% cases.¹⁵ Post menopausal bleeding was the most common form of bleeding pattern shown in other studies.^{8,13}

21.87% Patients had hysterectomy already done at remote areas stating benign conditions or alongwith non gynaecological surgeries by surgeons and had no history of cancer had now presented with vault growth. Surgeons or in experienced operators donot examine cervix and the diagnosis is easily missed when the stage of the disease had been early and could have been better treated.

The most common mode of presentation of cancer was in form of exophytic cauliflower like growth (65.10%) followed by endocervical type(19.28%) and ulceroinfiltrative type(15.62%).Chauhan R et al also had similar finding.⁶

The most common stage of presentation was stage III B(51.56%) followed by IIB(41.67%).Only 7 cases were of stages <IIB and maximum cases were advanced requiring chemoradiation(>=IIB). Other studies show similar results.^{6,7,8,13}

Recent studies have demonstrated evidence that carcinogenic HPV-related squamous intraepithelial lesions and cervical cancers are linked to a small, discrete cell population of cells that localizes to the squamocolumnar (SC) junction of the cervix.¹⁵ Most cervical cancers (80 to 90 percent) are squamous cell cancers. Adenocarcinoma is the second most common type of cervical cancer, accounting for the remaining 10 to 20 percent of cases.⁵ The most common histopathological type in my study was also squamous cell carcinoma. (92.19%) followed by adenocarcinoma and adenosquamous type. Similar findings were seen in other studies.^{6,7,8}

Different screening strategies such as rural cancer registries and camp approach for cancer detection have been found useful in minimizing the problem of cervical cancer in the villages. Various screening techniques such as visual inspection with acetic acid, visual inspection with Lugol's iodine, visual inspection with magnification devices, Pap smear and HPV-DNA testing have been suggested and tried under low-resource settings of our country, and cervical cytology screening has been found effective in reducing incidence of the disease. Single lifetime screening particularly of high-risk women along with analysis of cost-effective tumour markers such as Argyrophilic nucleolar organizer regions (AgNOR) counts to discriminate high-risk dysplasia cases appears to be an appropriate approach in fighting against cervical cancer.¹⁶

HPV vaccination can make major breakthrough in the control of carcinoma cervix in India. Chatterjee et al analyzed the status of HPV vaccination in the country and found that despite the efforts to introduce HPV vaccination in the National Immunization Programme and bring down the vaccine cost, challenges such as inadequate epidemiological evidence for disease prioritization, duration of

vaccine use, and vaccine acceptance in implementing HPV vaccination in India appeared to be major hurdle.¹⁷

CONCLUSION

Unawareness, illiteracy, rural inhabitation, increased parity, lack of screening programmes at remote areas and untrained health workers contribute to increasing burden of cervical cancer and late presentation of patients.

Mass education about common symptoms like discharge or bleeding pv, small family norms, HPV vaccination, availability of simple screening methods and training of health workers at remote areas will be helpful in the long run.

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