Original Research Article

Study of clinical profile of cervical cancer patients: a hospital based study

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ABSTRACT

Background: As a consequence of growing and ageing populations, developing countries are disproportionately affected by the increasing number of cancers. Though the situation in India is gradually improving there still exists a disparity between the availability of quality cancer care. With this view, the present study was planned to undertake in this tertiary care institute to find out symptoms, clinical staging, complications and management of cases of carcinoma of cervix.

Methods: This was a prospective observational study of carcinoma of cervix carried out at a tertiary care hospital catering services to the people of Maharashtra and neighbouring states. A thorough history including presenting complaints, demographic details, educational status and occupational details, details of menstrual and obstetric history along with any significant past history were recorded on a standard proforma.

Results: Most common symptom was per vaginal bleeding which was found in 29 (69.04%). In the present study almost two third of cases i.e. 28 (66.6%) had advanced stage (IIB, III, IV) at the time of admission while the number of cases diagnosed at early stage were only 14 (33.3%). For Wertheim's hysterectomy, most commonly used approach was transperitoneal 08 (61.53%) while 05 (38.46%) were operated by extraperitoneal approach. Pelvic lymph nodes were positive in 03 (23.07%).

Conclusions: A high proportion of patients presented in stages III and IV. This emphasizes the need for early detection of Gynecological cancers in our population. Accordingly, the importance of detection of the pre-clinical stage of the diseases by considering the possibility of initiating cost-effective screening measures needs to be emphasized.

Keywords: Cervical cancer, FIGO Staging, Lymph nodes, Wertheim's hysterectomy

INTRODUCTION

Cancer is an abnormal mass of tissue, the growth of which exceeds and is uncoordinated with that of the normal tissues and persists in the same excessive manner after cessation of the stimuli which evoked the change.[1]

The burden of cancer is distributed unequally between developed and developing countries, with particular cancer types exhibiting different patterns of distribution. As a consequence of growing and ageing populations, developing countries are disproportionately affected by the increasing number of cancers.

Cancer is perhaps the most progressive and devastating disease posing a threat of mortality to the entire world despite significant advances in medical technology for its diagnosis and treatment.

It is estimated that by the year 2020 there will be almost 20 million new cases. Worryingly, it is not only in the number of new cases that will increase but also the

proportion of new cases from the developing countries like India will also rise to around 70%.[2]

The most conspicuous feature of the distribution of cancers between the sexes is the male predominance of lung cancer. Among men, the five most common sites of cancers diagnosed in 2012 were lung, prostate, colorectum, stomach and liver. Among women, the five most common sites diagnosed were breast, colorectum, lung, cervix and stomach. Thus, cervical cancer is the fourth most common cancer among women worldwide.[3] One in every 5th woman in the world suffering from cervical cancer lives in India[4].

Over 80% of women with cervical cancer continue to be diagnosed at an advanced stage, which is significantly associated with poor prognosis in developing or less developed countries.[5]

Incidence of carcinoma of cervix, invasive type remains high in our country possibly as:

- Carcinoma cervix is symptomless in early stages
- Procrastination to the initial symptoms like leucorrhoea, post coital bleeding, inter menstrual bleeding leading to negligence by patients.
- Unawareness of symptom complex of carcinoma cervix and its routine screening tests.
- Illiteracy among the majority of population.
- Lack of adequate screening for carcinoma cervix in rural areas.
- Lack of cooperation for mass screening programmes undertaken by research due to lack of cancer consciousness and fear of disease.

Handicaps are further aggravated due to many superstitious beliefs and inability of patient to tell other due to shyness. Financial difficulties also prevent these patients from attending clinic. So, patients come to hospital when distressing symptoms become unbearable and also with advance stage of cancer of cervix.

Though the situation in India is gradually improving there still exists a disparity between the availability of quality cancer care. With this view, the present study was planned to undertake in this tertiary care institute to find out clinical staging, complications and management of cases of carcinoma of cervix attending tertiary care hospital.

Objective of present study was to assess the clinical profile of cervical cancer cases including symptoms, clinical staging, complications and management.

METHODS

This was a prospective observational study of carcinoma of cervix carried out at a tertiary care hospital catering services to the people of Maharashtra and neighbouring states.

The present study was carried out over a period of 2 years. Ethical committee clearance was obtained before starting the study. Informed consent forms were obtained from all patients. The study included all diagnosed cases of carcinoma of cervix admitted in Gynecology ward of this hospital.
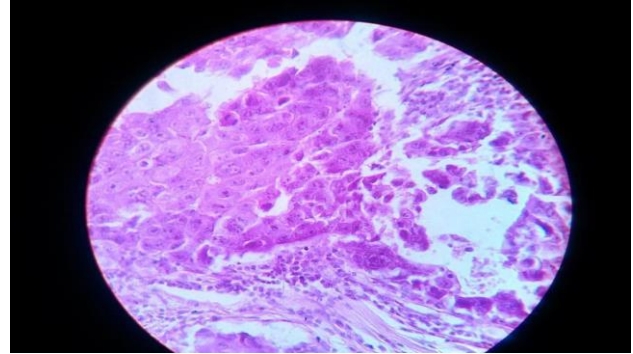
Figure 1: Squamous cell carcinoma.

A thorough history including presenting complaints, demographic details, educational status and occupational details, details of menstrual and obstetric history along with any significant past history were recorded on a standard proforma. History was followed by a thorough general, systemic, gynecological and per rectal examination. Based on these findings, provisional diagnosis was made. The patients were further investigated. Routine investigations were done. HIV testing was also done as per the NACO guidelines. According to the criteria of International Federation of Gynecology and Obstretrics (FIGO), the disease stages were assessed.
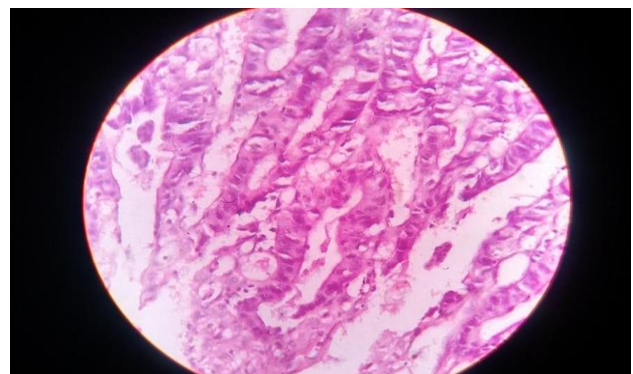
Figure 2: Adenocarcinoma.

The diagnosis of carcinoma of cervix was confirmed on histopathology. Ultrasonography and computed tomography was also done in each case.

Management was done as per the stage of the disease. Early stage cases (stage IB and IIA) were subjected to Wertheim's hysterectomy while cases with advanced stage (stage IIB, III and IV) were advised chemoradiation. Technique of Wertheim's hysterectomy

(extraperitoneal or transperitoneal) was noted. Intra-operative and postoperative complications were noted. As per the histopathological report of radical hysterectomy specimen and lymph nodes, adjuvant therapy was advised in relevant cases.

Figure 3: Wertheim's specimen.

Cervical growth
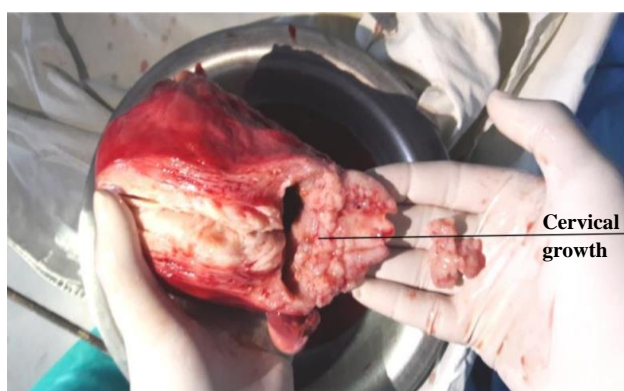
Figure 4: Wertheim's specimen.

Statistical analysis

Descriptive statistics such as frequency and percentage was used to present the data. Data was analyzed by using SPSS 16.0.

RESULTS

During the study period, there were 11,270 gynaec O.P.D attendees. Of these, 42 were carcinoma cervix cases.

Table 1: Age distribution.

Age group (years)	No. of cases	Percentage
30-40	05	11.90
41-50	15	35.71
51-60	08	19.04
61-70	12	28.57
>70	02	04.76
Total	42	100

Out of 42, maximum number i.e.15 (35.71%) were in the age group of 41-50 years followed by 12 (28.57%) in the

age group of 61-70 years. It showed bimodal peak of incidence. Least number i.e. 02 (04.76%) were in the age group of >70 years. Youngest case was 34 years of age (Non- Immunocompromised) and eldest was 81 years old (Table 1).

Most common symptom was per vaginal bleeding which was found in 29 (69.04%) cases. Post coital bleeding, intermenstrual bleeding and post menopausal bleeding were observed as different forms of per vaginal bleeding.

Next common symptom was per vaginal discharge which was found in 14 (33.33%) cases, of which 08 cases presented with excessive white per vaginal discharge, while 06 complaints of foul smelling discharge. Cachexia was present in 03 (07.14%) cases.

Table 2: Distribution as per symptomatology.

Symptom	No. of cases	Percentage
Post coital bleeding	06	14.28
Intermenstrual bleeding	10	23.80
Postmenopausal bleeding	13	30.95
Excessive white PV discharge	08	19.04
Foul smelling discharge	06	14.28
Others – Cachexia, Backache, Urinary Complaints	03+04+05	07.14+09.52 +11.90

Backache was present in 04 (09.52%) cases. 05 (11.90%) cases were having urinary complaints in the form of burning micturation (04 cases) and continuous dribbling of urine (01 case). More than one symptom was present at the time of diagnosis in 13 (30.95%) cases (Table 2).

Table 3: FIGO staging at the time of admission.

Stage	Cases	Percentage
IB	06	14.3
IIA	08	19.0
IIB	10	23.8
IIIA	09	21.4
IIIB	08	19.0
IVA	01	02.4
Total	42	100

In this study almost two third of cases i.e. 28 (66.6%) were having advanced stage (IIB, III, IV) of cervical cancer at the time of diagnosis while only 14 (33.3%) cases were diagnosed at early stage of cancer (Table 3).

The table shows that, staging changed in 01(02.38%) case from stage IIA to stage IIB after examination under anaesthesia (EUA) (Table 4).

Out of 42 cases, histopathologically majority of cases i.e. 40 (95.23%) had Squamous Cell Carcinoma. Only 2

(04.76%) were of Adenocarcinoma. In case of two cases of Adenocarcinoma age at the diagnosis was 44 years and 50 years (Table 5).

Table 4: Clinical staging v/s staging after EUA.

Clinical Staging	Stage	Staging After EUA
06	IB	06
08	IIA	07
10	IIB	11
09	IIIA	09
08	IIIB	08
01	IVA	01
42	Total	42

Table 5: Distribution as per histological type.

Histology	Cases	Percentage
Squamous cell carcinoma	40	95.23
Adenocarcinoma	02	04.76
Total	42	100

One case was having continuous dribbling of urine at the time of admission. On examination, it was found to be a case of Vesicovaginal fistula. She was stage IVA case.

One case was in uraemia at the time of admission. She was stage IVA case (Table 6).

Table 6: Distribution as per complications at the time of admission.

Complications	Cases	Stage of cancer
VVF (Vesicovaginal Fistula)	01 (02.3%)	IVA
Uraemia	01 (02.3%)	IVA

Out of 42, 13 (30.95%) were of early stage (stage IB + stage IIA) so Wertheim's Hysterectomy was done in these cases. Out of operated, 03 (07.14%) received post operative radiation therapy for positive surgical margins and positive pelvic lymph node. Remaining 29 (69.04%) were of advanced stage of disease, so chemo radiation therapy was advised.

Table 7: Distribution as per management.

Management	No. of cases	Percentage
Wertheim's hysterectomy	13	30.95
Adjuvant radiotherapy	03	07.14
Chemo radiation therapy advised	29	69.04
Chemo radiation therapy received	17	40.47
Chemo radiation therapy not received	08	19.04
Lost to follow up	04	09.52

Out of these 29 (69.04%), 17 (40.47%) received chemo radiation therapy while 08 (19.04%) did not take therapy and 04 (09.52%) were lost to follow up. Hence their treatment details were not available (Table 7).

Out of 13 Wertheim's hysterectomies, 08 (61.535) Wertheim's were done by transperitoneal approach while remaining 05 (38.46%) were done by extraperitoneal approach (Table 8).

Table 8: Distribution as per technique of Wertheim's hysterectomy.

Technique	Cases	Percentage
Transperitoneal approach	08	61.53
Extraperitoneal approach	05	38.46
Total	13	100

Out of 13 cases, obturator lymph nodes were positive in 03 cases. Amongst these three, 02 had positive internal and external iliac lymph nodes also. All these cases received postoperative radiotherapy. Common iliac lymph nodes were negative in all cases. Para-aortic lymph nodes were sampled in one suspicious case, but they were negative (Table 9).

Table 9: Distribution as per histopathological report of lymph nodes.

Lymph nodes	Cases (n=13)	Positive Nodes	Negative Nodes
Obturator	08	03	05
Internal iliac	07	02	05
External iliac	09	02	07
Common iliac	08	00	08
Para-aortic	01	00	01

DISCUSSION

Studies conducted by Paul SB et al, Shantla S et al, Spartacus RK et al and Devi S et al reported that maximum number of cervical cancer cases were from the age group 41-50 years followed by the age group 51-60 years.[6-9]

The findings of the above studies are comparable with the findings of present study. In the present study, maximum numbers of cases were in the age group 41-50 years followed by in the age group 61-70 years. The mean age of the cervical cancer case was 55.54 years and median age was 57.54 years.

The studies by Narayanswami N et al, Wadhvani R et al, Kaverappa et al and Devi S et al reported that the commonest presenting symptom was per vaginal bleeding, may be either post coital, inter menstrual or postmenopausal.[9-12] The next common presenting symptom was excessive white PV discharge and foul smelling discharge. These results are comparable with the present study.

The studies of Wadhavani R et al, Kaverappa et al and Singh R et al reported that maximum cases belong to advanced stage (IIB, III and IV) of disease.[11-13] In the present study also, two third were having advanced stage at the time of diagnosis. So, study results are comparable.

The studies carried out by Akhthar PS et al, Narayanswamy N et al, Wadhvani R et al, Ameen NS et al and Singh R et al in different settings reported that squamous cell type of carcinoma was most prevalent.[10,11,13-15] Above results are comparable with the present study. The studies of Rajarao P et al, Ameen NS et al and Singh R et al and reported that most were treated by chemo radiation therapy.[13,15,16] Similar findings were noted in the present study. So, the results are comparable.

The incidence of lymph node metastasis is directly correlated with the stage of the disease. Lymph node metastasis, pelvic and/or para-aortic have a major negative impact on the survival of the patient.[17,18]

CONCLUSION

A high proportion of patients presented in stages III and IV. This emphasizes the need for early detection of gynecological cancers in our population. Accordingly, the importance of detection of the pre-clinical stage of the diseases by effective screening measures needs to be emphasized. Early detection predicts better prognosis. The most effective ways of preventing and controlling cervical cancer are regular cervical cancer screening above the age of 30 years. The focus should be on addressing the underprivileged women.

There are severe constraints concerning organized mass scale screening in India. These could be overcome through health education of masses, training of health professionals and changing the health seeking behaviour of women.

Cervical cancer is a favorable site for an effective control programme with its ease to access and a long latent period of intraepithelial neoplasia which is easily recognizable by the Pap smear. Thus, there is a need for initiation of community screening and educational programs through awareness campaigns.

The combined approach i.e. education, primary prevention (vaccination) and secondary prevention (screening and treatment) can be applied to cancer cervix. 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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