

Profile of Gynaecologic Malignancies Reported at a Tertiary Care Centre in Rajasthan

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ABSTRACT

Background: worldwide the incidence of cancer had shown increasing trends in last few years, and India also follows the same path. In Indian female, breast cancer is the leading site for new cases followed by Carcinoma Cervix. Worldwide incidence for breast cancer far exceeds those of other cancers, followed by colorectal cancer, lung, and cervical cancer. The aim of this study was to study pprofile of gynaecologic malignancies who reported at a tertiary care centre in Rajasthan.

Material and Methods: The study was an observational study which was conducted at a NIMS Hospital situated in Jaipur which is a Tertiary Care Centre. All the female with gynecological malignancies, who visited the hospital between May 2022 to May 2023 (01 year) were enrolled in the study. Information on their primary site of malignancy, incidence, grade, stage and histological subtypes were collected.

Results: A total of 153 patients with histopathological proven gynecological malignancies attended the oncology department at our hospital from May 2022 to May 2023. Carcinoma Cervix was the leading gynecological malignancy accounting for almost 58 percent of cases. It was followed by Ovarian (30%), Uterine (5.9%). Most of the patient of Carcinoma Cervix, Ovary, Uterus and Vagina presented in stage III. However in Carcinoma Vagina most common stage of presentation was Stage II. In this study squamous cell carcinoma was the commonest histological subtype for Carcinoma cervix, vulva and vagina. In patients with CA Ovary Serous variety of epithelial tumour was the most common histological presentation followed by mucinous and dysgerminoma.

Keywords: Gynaecologic Malignancies

INTRODUCTION

Cancer has become a major cause of morbidity and mortality in developing and developed countries.^[1] Cancer prevalence and deaths are increasing worldwide. In 2020, there were 193 lakhs new cases and approximately 100 lakhs cancer related deaths worldwide. It is expected that by 2040, the number of new cases per year would rise to 295 lakhs and the number of cancer related deaths to 164 lakhs.^[1] In India, approx. 13.9 lakhs cases were registered in 2020 with 8.5 lakhs cancer related deaths.^[1] Cancer rates are highest in countries whose populations have the highest life expectancy, education level and standard of living. Some cancer types, especially cervical cancer rates are highest in countries in which population ranks low in these measures.

Worldwide in female, incidence for breast cancer far exceed those of other cancers (22.61 lakhs), followed by colorectal

cancer (8.65 lakhs), lung (7.70 lakhs) and cervical cancer (6.04 lakhs). In gynecological malignancies, cervical cancer (6.04 lakhs) exceeds the uterine cancers (4.17 lakhs), ovary (4.17 lakhs), vulva (.45 lakhs).^[2] In Indian females, breast cancer (1.78 lakhs) is the leading site of cancer followed by cervix (1.24 lakhs) and ovary (0.46 lakhs).^[3]

In developing countries like India and Third world nations, most of the population does not have access to a health system and organised and regulated cancer care system. A diagnosis of cancer often leads to huge expenditure^[2], often leading to pushing entire families below the poverty line.^[3] The aim of this study was to study pprofile of gynaecologic malignancies who reported at a tertiary care centre in Rajasthan.

METHOD AND MATERIALS

The study was an observational study which was conducted at a NIMS Hospital situated in Jaipur which is a Tertiary Care Centre. All the female with gynecological malignancies, who visited the hospital between May 2022 to May 2023 (01 year) were enrolled in the study. Information on their primary site of malignancy, incidence, grade, stage and histological subtypes were collected. Patients who had histological confirmation based on biopsy or excisional biopsy specimen were included in this study. Metastatic lesion to the gynecological site with primary elsewhere were excluded from the study.

RESULTS

A total of 153 patients with histopathological proven gynecological malignancies attended the oncology department at our hospital from May 2022 to May 2023. They were observed for their age, common presenting symptoms, site of primary malignancy, stage and histological subtypes. At our center Carcinoma Cervix was the leading gynecological

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malignancy accounting for almost 58 percent of cases. It was followed by Ovarian (30%), Uterine (5.9%) and Vulval and

Vaginal malignancy accounting for minor number of cases. The incidence of various Gynecological cases at our center is depicted in Table 1.

The mean age of presentation with range of age presentation of various gynaecological cases is shown in Table 2.

The presenting symptoms of various subsites of malignancy is shown in Table 3. Post menopausal bleeding and contact bleeding were the most common presenting symptom in patients of Carcinoma Cervix, followed by menstrual irregularities and vaginal discharge. In Carcinoma Ovary patients the most common presentation was abdominal distension and pain abdomen. Post menopausal bleeding was the most common presenting symptom for patients with uterine malignancy. Vulval growth along with itching were most common symptoms for Carcinoma Vulva. Patients with Carcinoma Vagina presented commonly with contact bleeding and vaginal discharge.

Most of the patient of Carcinoma Cervix, Ovary, Uterus and Vagina presented in stage III. However in Carcinoma Vagina most common stage of presentation was Stage II. Stage wise complete distribution of patient of various gynaecological malignancy is shown in Table 4.

	Subsite	No of cases	Percentage
1.	Cervix	88	57.5 %
2.	Ovary	46	30.1 %
3.	Uterus	9	5.9 %
4.	Vulva	6	3.9 %
5.	Vagina	4	2.6 %

Table-1: Incidence of 05 leading gynecological cancer sites at our center.

Primary site	Mean Age (In years)	Range of Age (In Years)
Cervix	53 years	19-74 years
Ovary	48 years	14- 69 years
Uterus	62 years	32-79 years
Vulva	58 years	34-59 years
Vagina	54 years	29-66 years

Table-2: Mean age distribution of various cancer subsites with range of age presentation

Presenting complaints	Cervix	Ovary	Uterus	Vulva	vagina
Pain abdomen		12	1		
Intestinal Obstruction		2			
Menstrual irregularities	32	4			
Post Menopausal Bleeding	38		8		
Abdominal distension	1	28			
Vaginal discharges	14		3		2
Vulval Itching				3	
Vulval Growth				5	
Urinary incontinence	2				
Contact Bleeding	42				3

Table-3: Distribution of presenting symptoms of various gynaecological cancers

Stage	Cervix	Ovary	Uterus	Vulva	Vagina
I	1	3	2	1	1
II	16	7	3	3	1
III	52	28	4	2	2
IV	6	8			

Table-4: Stages of presentation of various subsites at our centre

Subsites	Type of Tumour	Histological Subtype	No of Patients
Cervix		Squamous Cell Carcinoma	79
		Adenocarcinoma	9
Ovary	Epithelial	Serous	26
		Mucinous	7
		others	4
	Germ Cell Tumour	Dysgerminoma	6
	Choriocarcinoma	1	
	Sex cord stromal tumour		2
Uterus		Adenocarcinoma	8
		Leiomyosarcoma	1
Vulva		Squamous Cell Carcinoma	6
Vagina		Squamous Cell Carcinoma	4

Table-5: Distribution of histological types of various gynaecological malignancies



In this study squamous cell carcinoma was the commonest histological subtype for Carcinoma cervix, vulva and vagina. In patients with CA Ovary Serous variety of epithelial tumour was the most common histological presentation followed by mucinous and dysgerminoma. In uterine malignancy endometrioid was found most commonly with one case of Leiomyosarcoma.

DISCUSSION

Worldwide breast is the leading cancer site in females followed by colorectum. Carcinoma Cervix is the fourth leading site worldwide as per GLOBOCON 2020 worldwide. In India Carcinoma Cervix is the most common gynaecological malignancy followed by ovary (Globocon 2020). Nand kumar et al and Moore m et al also found cervix as the leading site of gynaecological malignancy.^[4,5] National Cancer Registry Program (NCRP)^[6] also concluded that cervix is the leading site of gynaecological malignancy followed by ovary. But a study by Nasreen reported ovary as the leading site of gynaecological malignancy. A study from Tehran reported ovary as the leading site of Gynaecological malignancy followed by uterus and cervix.^[7-11] In this study Carcinoma Cervix was the leading cancer site (57.5%), followed by Ovary(30.1%), Uterus(5.9%) and vulva (3.9%) and Vagina(2.6%).

In this study the age of patients ranged from 14-79 years. Most of the patients presented in 4th, 5th and 6th decade of life. In this study the mean age of presentation for cervix was 53 years and for ovary is 48 years which is almost similar to other studies from India and SEER program of United states and European union.^[12-14] The mean age of presentation of uterine malignancy was 62 years in this study which is comparable to a study from Bangladesh and Pakistan.^[15,16] The pattern of age distribution for vulva and vagina is comparable to the other studies.^[12-14]

In this study the most common presenting symptom for Carcinoma Cervix was found to be contact bleeding and excessive post-menopausal bleeding. In patients with ovarian malignancy abdominal distension with or without pain abdomen were the predominant symptoms. In uterine malignancy post-menopausal bleeding was the most common symptom. Overall contact bleeding, post-menopausal bleeding with other menstrual irregularities, abdominal distension and excessive vaginal discharge were the main presenting symptoms in gynaecological malignancy. In few other studies post-menopausal bleeding, excessive vaginal discharge and abdominal discharge were the main presenting symptoms.^[8,9,15]

In this study maximum patients in Carcinoma cervix, ovary, uterus and vaginal presented in stage III, while in vulval malignancy it was stage II which was more common. In few other studies of underdeveloped or developing countries most of the patients with gynaecological malignancies presented in advanced stage.^[8-12,14,15]

In this study squamous cell carcinoma was the predominant histological type in Carcinoma cervix, vulval and vaginal cancer. However, the predominant histological

type in ovarian and uterine malignancy was found to be adenocarcinoma, with few cervical cancer patients were having adenocarcinoma variant. In patients with Carcinoma Ovary Serous variety of epithelial tumour was the most common histological presentation followed by mucinous and dysgerminoma. This histological distribution pattern was similar to many other studies.^[17-19]

CONCLUSION

The cancer incidence burden is continuing to increase in India. Among the leading cancers in females, breast cancer was found to be the highest, followed by three female genital organs cervix, ovary and corpus uteri. Preventable measure needs to be taken for reducing the future burden of cancer. This includes increasing awareness of the general population by involving government agencies, NGO'S and private agencies. Female should be made aware about the common presenting symptoms and should be encouraged to get vaccinated against HPV. More screening centre and programme should be encouraged to detect gynaecological malignancies at an earlier stage.

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