

Frequency of Gynecological Malignancies Treatment and Outcome at Bolan Medical Hospital Quetta

Gynecological Malignancies Treatment and Outcome

Iffat Usmani, Hanana Hameed and Fozia Jan

ABSTRACT

Objective: To determine the frequency, treatment and outcome of different genital tract malignancies in the province of Balochistan.

Study Design: Descriptive / cross-sectional study

Place and Duration of Study: This study was conducted at the Department of Obstetrics and Gynecology, Bolan Medical Complex, Quetta from Jan, 2009 to Dec. 2015.

Materials and Methods: A total of (5060) patients were admitted in BMCH during the period of 7 years and all the patients with genital tract malignancies confirmed on Histopathology report were included. Relevant data regarding history was obtained and physical examination was performed on all patients and investigations were done for all the patients. Surgical procedures were performed where needed and specimens were sent for histopathology. Clinical & surgical staging was done according to the FIGO classification.

Results: A total of 5,060 patients were admitted and after examination a total of 105 patients had gynecological malignancies. Carcinoma of the ovary was the most common (42%), followed by Cervical Cancer (25%) and Uterine Cancer (17%). Choriocarcinoma was seen in (7.6%), while vulvae & vaginal cancer (6.6%). The mean age was 50 years. The lowest parity was seen in ovarian cancers (21%), whereas cervical & uterine cancers were seen in multipara (31%). Ovarian cancers mostly presented with abdominal mass (34%), abdominal pain (24%), weight loss (25%) & anorexia (20%). While uterine & cervical cancers were usually presented with irregular vaginal bleeding (24%), postmenopausal bleeding (16%) & vaginal discharge (16%). 65% patient presented in stage iii & iv. Serous cystadenocarcinoma was the commonest ovarian malignancy (40%), while most common cervical cancer was squamous cell carcinoma (85%) & endometrioid endometrial carcinoma (55%) was the most common uterine carcinoma.

Conclusion: Major gynecological malignancy encountered in our study was Ovarian Cancer in advanced stages. Patient education is essential for early diagnosis and treatment of ovarian cancer.

Key Words: Gynecological Malignancies, Ovarian Cancer, Cervical Cancer, Uterine Cancer.

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INTRODUCTION

Cancer is an abnormal proliferation of cells of the body which predominantly affects the aging person. It is a global challenging health problem and gynecological cancer contributes to a huge burden of the morbidity and mortality around the world. A study on global cancer statistics by the international agency for research on cancer indicates that gynecological cancer accounts for 5.1 million estimated new cases, 2.9 million cancer deaths and 13 million [5 years] prevalent cancer cases among the women in the world.¹

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Cervical Cancer is the most common form of cancer and in women in developing countries and third most common worldwide. The current coverage for Cervical Cancer Screening in Pakistan is only 1.9% and that's the reason for the growing incidence of cervical cancer.² According to GLOBOCAN (WHO Project for Cancer related research in Pakistan) incidence of cervical cancer is 19.6%/100,000 in 2008 as compared to less than 9.1/100,000 in 2002. Data on screening in the past 5 years for Cervical Dysplasia coverage in developed countries is 85% whereas for under developed is 5%.³ The incidence of cervical cancer in the developed countries has fallen due to widespread coverage of cervical screening.^{1,4}

Ovarian Cancer causes the most deaths than any other cancer of female reproductive tract globally. An overall 5 years survival of only 30% in the United Kingdom⁵. It can occur at any age, even in childhood, but is most common after menopause. More than 60% of women present with cancer in stage III and stage IV disease, when it has already spread beyond the ovaries.⁶

Prognosis of ovarian cancer is stage dependent 92% at stage I & 5% at stage IV

Incidence of Endometrial Cancer is four folds higher in developed countries. The overall 5 year survival, because of early diagnosis and management for endometrial cancer, is 70%, We rarely come across Vulval and vaginal cancers in our region.

This study was carried out to determine the clinical presentation of gynecological malignancies and their occurrence in relation to age, parity, presenting symptoms, histopathological type and stage of the disease. In order to reduce morbidity and mortality from gynecological cancers, strategies are needed to be devised upon the findings for the better screening, diagnosis and timely management.

MATERIALS AND METHODS

This cross sectional descriptive study was conducted in Bolan Medical Complex Hospital Quetta from January 2009 to December 2015. All the patients who came for diagnosis and treatment of genital tract malignancies were enrolled. Patients having benign tumors were not included in the study. All relevant data regarding the age, parity, presenting symptoms, clinical examination, investigations , surgical procedures, staging (clinical and surgical) according to FIGO classification of tumors and different histopathological type of cancer were entered on a predesigned performa. Patient were referred to oncology department of BMCH and CINAR hospital Quetta for chemo and radio therapy according to stage of disease and histopathological reports.

RESULTS

There were 5060 gynecological admissions during the study period from the January, 2009 – December, 2015, out of which 105 cases of gynecological malignancies were reported and treated in our center.

The frequency of gynecological malignancies was 2% in our study. The ovarian cancer was most common, occurring in 45/105 (42%) women, followed by cervical cancer in 27/105 (25%). The incidence of endometrial cancer was 18/105 [17%], choriocarcinoma 8/105 cancer [7.6%] and 7 cases of vulval and vaginal cancer (6.6%).

The mean age was 50 years. The largest number of gynecological malignancies occurred in 5th – 6th decade of life. The youngest was an adolescent girl, who presented with abdominal mass and pain, diagnosed as choriocarcinoma of the ovary.

The highest parity was seen in women with uterine and cervical cancer (31%) and the lowest in those with ovarian cancer (21%). Vulvul and Choriocarcinoma were also seen in parous women.

Ovarian malignancies mostly presented with abdominal mass (34%), abdominal pain (24%), weight loss (25%)

& anorexia (20%), while uterine and cervical malignancies commonly presented with post-menopousal bleeding (16%) & irregular vaginal bleeding (24%) & discharge (16%).

Vulvar cancer presented with vulval ulcer & swelling(3%). Choriocarcinoma mainly presented with irregular vaginal bleeding.

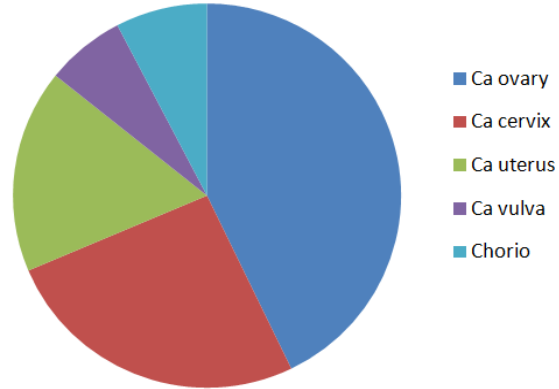


Figure No.1: Frequency of Gynecological Malignancies

Table No.1: Age of Distribution of Gynecological Malignancies

Age Range (years)	Uterus N=18	Ovary N=45	Cervix 27=n	Vulva 7=n	Chorio-carcinoma N=8	%age N=105
Less than 40	-	16	-	1	4	20%
40-49	2	9	5	2	3	20%
50-59	6	10	11	1	1	27.6%
60 and above	10	10	11	3	-	32%

Among the patients with malignancies 68/105 (64%) of cases presented at stage III & IV.

Table No.2: The stage of presentation of different gynecological malignancies

Stage	Ovarian	Uterine	Cervical	Vulval	%age
Borderline	4	-	-	-	3.8%
Stage 1	-	4	1	-	4.7%%
Stage 2	5	9	3	3	19%
Stage 3	19	3	12	1	33%
Stage 4	17	2	11	3	31%

Table No.3: Distribution with respect to parity among the women with gynecological malignancies

Diagnosis	Para 0	Para 1	Para 2-4	Para >5	%age
Uterine cancer	1	-	2	15	17%
Cervical cancer	3	-	6	18	25%
Ovarian cancer	18	5	10	12	42%
Vulval/ vaginal cancer	3	-	1	3	6.6%
Choriocar-cinoma		1	2	5	7.6%

Table No.4: Clinical presentation of different gynecological malignancies

Presenting Symptoms	Ovarian	uterine	Cervical	Vulval	Choriocarcinoma	Percentage
Irregular bleeding	2	5	12	1	8	24%
PMB	3	8	8	-	-	16%
PCB	-	-	6	-	-	5%
Vaginal discharge/Itching	-	3	8	2	-	16%
Abdominal Mass	32	3	-	-	4	34%
Abdominal Pain	18	2	6	-	2	24%
Ulcer / swelling	-	-	-	4	-	3%
Weight loss	20	-	7	-	-	25%
Dyspareunia	-	-	8	-	3	10%
Anorexia	15	-	6	-	3	20%

Table No.5: Histopathological type of gynecological malignancies

Histopathological types	Ovarian	Uterine	Cervical	Vulval	Percentage
Serous cyst adenocarcinoma	18				40%
Mucinous cyst adenocarcinoma	7				15.5%
Papillary cell adenocarcinoma	2				4%
Dysgerminoma	6				13.3%
Sertoli Leydig cell tumor	1				2%
Endometroid carcinoma	1	10			55%
Granulosa cell tumor	2				4.4%
Squamous cell carcinoma			23	5	85.2%
Struma ovarii	1				2%
Adenocarcinoma			2	2	8.8%
Adenosquamous carcinoma			2		7.4%
Immature Teratoma	3				6.6%
Germ cell tumor	3				6.6%
Carcinosarcoma		1			5.5%
Borderline tumor	4				8.8%
Choriocarcinoma	1	8			16%
Leiomyosarcoma		1			5.5%
Invasive mole		1			3.5%

DISCUSSION

The distribution of gynecological malignancies varies in different geographical areas of the world. The frequency of gynecological malignancies is 2% in our studies, which correlates with that reported by Ashraf T(1.8%) but is higher in comparison to 0.32% by Mohyuddin et al & 0.92% by Akhtar et al^{7,8,9}. This can be attributed as tertiary care hospital, receiving patients from all over Balochistan, border areas of Sindh and Afghanistan. However, Okeke TC reported a high incidence of (10%) in Nigeria with majority of patients having cervical cancer.¹⁹

In our study ovarian cancer was found to be most common gynecological malignancy (42%), followed by cervical cancer (25%) and endometrial cancer (17%), as observed in other studies carried out in Pakistan^{11,12, 15}, while the international studies showed that cervical cancer was the most common.^{4,5,10,14} This difference is due to Islamic State of Pakistan where Islam restricts extra marital sexual relation. Epithelial Ovarian cancers were most common among post menopausal women whereas germ cell tumors were most commonly seen in

children and adolescents. This correlates with some national and international studies^{7,9,13,16}. Ovarian Cancers were common in nulliparous woman. Most of the patients had ovarian carcinoma presenting with abdominal mass, abdominal pain, weight loss & anorexia which is similar to the result reported by Junejo et al¹⁶. Surface epithelial tumor formed the main histopathological group in our study, similar to other national and international studies^{8,9,12,15}. Among the epithelial ovarian cancer Serous cyst adeno-carcinoma was the commonest cancer (40%) followed by mucinous cyst adenocarcinoma (13%) whereas Ahmed et al also found mucinous cyst adenocarcinoma to be the commonest variety.¹³

Our study revealed that cervical cancer was the second commonest site among gynecological malignancies similar to other national studies.^{7,8,10,12} While studies from Bangladesh, India and Africa showed cervical cancer occupied the top most position^{2,4,10,15}. The peak incidence of cervical cancer in this study was at 50-70 years of age, which coincide with result reported by other national studies^{9,11}. Cervical cancer mostly presented with irregular vaginal bleeding &

postmenopausal bleeding with foul smelling vaginal discharge. The Squamous cell carcinoma (85%) was the commonest type of cervical cancer in our study, followed by adenocarcinoma (8.8%) which is similar to other studies.^{2,10,11,17,15}

The third most common malignancy was endometrial cancer in our study, similar with other studies^{1,7,15, 16,17}. Comparatively the incidence rate of this malignancy is lower in Asia and Africa than that of in industrialized countries^{1,7,8,15}. Like other studies, the main histopathological type of endometrial cancer was endometrioid carcinoma (55%).

Prevalence of choriocarcinoma in our study was 7.6%, which is very similar to other studies conducted in this region^{7,20}. With the help of health education about early symptoms of disease and simple diagnostic test like ultrasound pelvis, beta HCG & chest X-ray, curative rate for choriocarcinoma can be increased up to 100%. In our study 2-3rd of all genital tract malignancies presented at stage III and IV, except endometrial carcinoma which presented in early stage. Late presentation poses a surgical challenge and results in poor treatment outcome. In fact, 16% of cases in this study were inoperable at presentation.

In this study we found ovarian tumors to be the major type of gynecological malignancy. Greater awareness of the symptoms of ovarian cancer might lead to earlier diagnosis and treatment and thus possibly improve the prognosis.

CONCLUSION

Screening and regular gynecological examination and well defined follow up surveillance system can change the disease morbidity and mortality.

Patient education is essential for early diagnosis and treatment which would improve the survival rate.

Every patient with Cancer requires proper clinical evaluation, surgical staging and optimal therapeutic approach.

Author's Contribution:

Concept & Design of Study:	Iffat Usmani
Drafting:	Hanana Hameed and Fozia Jan
Data Analysis:	Hanana Hameed and Fozia Jan
Revisiting Critically:	Iffat Usmani, Hanana Hameed and Fozia Jan
Final Approval of version:	Iffat Usmani, Hanana Hameed

Conflict of Interest: The study has no conflict of interest to declare by any author.

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