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Trends of Different Gynaecological Cancers at Combined Military Hospital Lahore; An Overview of Last Five Years

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ABSTRACT

Objective: To observe trends of gynaecological malignancies at Combined Military Hospital Lahore.
Study Design: Cross-sectional study.
Place and Duration of Study: Combined Military Hospital Lahore Pakistan, from Jan 2015 to Dec 2019.
Methodology: Data was retrieved from patient admission and discharge notes and their records at the pathology department. Variables like trends of gynaecological malignancies, mean age, common presenting complaint, and common malignancy with histopathology type were collected.
Results: A total of 107 patients were selected from 2015-2019. Commonest malignancy observed was carcinoma endometrium 51 (47.6%) followed by carcinoma ovary 32 (29.9%), and gestational trophoblastic disease 17 (15.8%), carcinoma cervix 6(5.6%) with one case of carcinoma vulva (0.9%). The common presentation was postmenopausal bleeding 27 (25.2%). Among endometrial carcinoma, adenocarcinoma was the common histopathological type (92.1%). The mean age observed with carcinoma endometrium was 46.9±9 years, ranging from 45-65 years.
Conclusion: Endometrial malignancy was the commonest malignancy observed in our study. Most patients presented with postmenopausal bleeding. Trends of different gynaecological malignancies were reviewed.

Keywords: Epithelial ovarian cancer, Gynaecological malignancy, Gestational trophoblastic disease, Human papillomavirus, Postmenopausal bleeding.

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INTRODUCTION

Female genital tract malignancies are those of the Uterus, Ovary, Cervix, Vulva, Vagina and Gestational trophoblastic disease leading to consumption of major health finances for associated morbidity and mortality. Lack of awareness, late diagnosis and late presentation to the hospital worsen the disease. The frequency of different malignancies in different regions of the world depend upon different genetic and socioeconomic status. Endometrial cancer is the commonest malignancy in the world. As noted in the UK, there were more than 9000 cases in the year 2015.[1]

Risk factors are increased BMI, diabetes, infertility, and endometrial hyperplasia. A cut-off of 4 mm is used for endometrial thickness in the postmenopausal woman.[2] Majority patients present in the age group >60 years. Endometrial biopsy plays a great role in ruling out malignancy in patients >35 years and with postmenopausal bleeding. Common presentation is postmenopausal bleeding. TVS is used for endometrial thickness, followed by endometrial biopsy. Among this population, 20-25% of cases are diagnosed with endometrial cancers.[3]

Cervical malignancy has a higher incidence in well-developed countries due to multiple sexual partners, and young age at first sexual activity 3 Underdeveloped countries have frequent cases due to a lack of population-based screening programs and awareness.[4] Screening and vaccination have played a great role in preventing cervical malignancy.[5] HPV infection, young age at sexual activity and multiple sexual contacts are the main risk factors. Intermenstrual and postcoital bleeding are common presentations. Cytology, colposcopy and biopsy help in diagnosis. Staging includes biopsy, EUA (rectovaginal examination, cystoscopy, proctoscopy), and imaging studies, including chest Xray, IVU and MRI pelvis.[6]

A second common cause of maternal mortality is ovarian malignancy due to presentation in advanced stage.6 Overall incidence of disease in the UK is 2% and considered a silent killer in 75% of cases due to its complex intrinsic nature and late presentation. Mass abdomen, abnormal bowel /urinary habits, abdominal distension and ascites are common symptoms.[7] Risk factors are infertility, family history, BRCA 1 and 2, MMR (mutation of mismatch repair) and use of HRT. Breastfeeding and oral contraceptive pills should

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be encouraged to minimize the risk of ovarian malignancy.[8]

Epithelial ovarian cancer has five sub-histopathology types. High-grade serous is most dangerous. After gynaecological examination, TVS, CA 125 and CECT abdomen pelvis, we proceed to tumour debulking surgery. GTD is seen among women with ages ranging between 30 -39 years.[9] Vulvar cancer involving the vulva, external genitalia, clitoris, mons pubis, urethral, vaginal opening and inner part of labia majora and more. The most common type of vulval cancer is squamous cell Carcinoma.[10]

The purpose of the study was to review trends of different gynaecological malignancies in Combined Military Hospital Lahore because, despite a huge number of gynaecological malignancies, our data was not maintained and highlighted. In this study, the common presentation of postmenopausal bleeding was highlighted. Gynaecological malignancies consume main health financial resources, so patient care should be a basic priority by using multiple discipline of expertise.

METHODOLOGY

This cross-sectional study was conducted at the Department of Gynaecology and Obstetric Combined Military Hospital Lahore Pakistan, from January 2015 to December 2019. Approval from the Hospital Ethical Committee was taken (166/2020). The sample size was calculated using the WHO sample size calculator, taking a confidence interval of 9% margin of error and 5% reported prevalence of gynaecological malignancy 12.5%.[9] The estimated sample size came out to be 107. Non-probability consecutive sampling technique was used.

Inclusion Criteria: Women with perimenopausal/ postmenopausal bleeding, family history of gynaecological malignancy, mass abdomen, bowel, and urinary symptoms were inlcudd in the study. Patients with persistent vaginal discharge and intermenstrual and postcoital bleeding were also included.

Exclusion Criteria: Healthy volunteers and women with severe medical disorders were excluded from the study because of adverse outcomes related to poorly controlled medical disorders.

Written informed consent was taken. History regarding patient age, marital status, parity, obstetrical, gynaecological history, family history, and risk factors related to different malignancies, the onset of symptoms was taken. The examination included measurement of blood pressure, pulse, pallor, and body mass index. A detailed gynaecological examination was done, including abdominal, speculum and vaginal examination.

Baseline investigation included a complete blood picture, blood group and Rhesus factor, urine routine examination, and hepatitis B and C screening. Pelvic ultrasound for uterine, adnexal pathology and endometrial thickness was done. Endometrial pathology was ruled out by outdoor Pipplle sampling. MRI pelvis, CECT chest, abdomen and pelvis were done for endometrial, cervical and ovarian CA staging.

Family counselling was the main step prior to proceeding to surgery. Patients at admission were counselled about surgical procedures, complications, and postoperative follow-up. Tumour board, Oncologist, anaesthetist and ICU facilities were provided. Blood products were arranged and high risk. Written informed consent was taken.

All information related to patient history, symptoms, clinical, histopathological and radiological findings were documented in the proforma. Statistical Package for Social Sciences (SPSS) version 23.0 was used for the data analysis. Descriptive Statistics were used to describe the results like frequency and percentage for the quantitative variable. All data were collected regarding common trends of gynaecological malignancy with common malignancy, mean age, common presenting complaints, and histopathological type of cancer.

RESULTS

A total of 107 women were registered in this study. Common gynaecological malignancy observed was endometrial cancers, seen in 51 women (47.6%), and the common presenting complaint was bleeding per vagina among 27 women. Table-I showed a mean Age of 46.9±9 with a range of 45-65 years.

Table-I: Different age groups for CA Endometrium (n=51)

Age Groups	n (%)
40 -45 years	3 (5.8)
45-55 years	42 (82.30)
55-65 years	6 (11.7)

Endometrial cancer with a common trend of patients 51 (47.6%), followed by ovarian cancer 32 (29.9%) and GTD 17 (15.8%). CA cervix and vulva were 6 (5.6%) and 1 (0.9%), respectively (Figure).

Adenocarcinoma was a common histopathology type in endometrium cancers observed in 47 women (92.1%) (Table-II).

Results also showed preinvasive cervical lesions, which were seen in seven patients. Among these, three patients were with ASCUS, two were with AGCUS, and two were with adenocarcinoma.

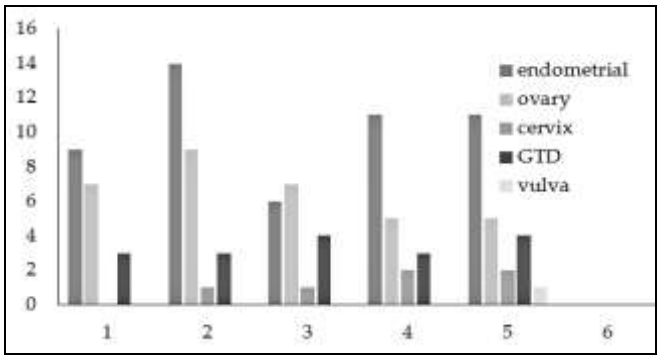

Figure: Trends of different gynaecological malignancies in CMH Lahore in year 2015-2019 (n=107)

Afroz et al. showed cervical malignancy as more frequent (53%)than ovarian malignancy (29%).[11]

The most common presenting complaint in our study was vaginal bleeding (52.9%) which was also reported in another study done in Nigeria.[5]

The second common malignancy in our study was ovarian cancer (29.9%) which was very close to the study conducted by Bibi et al. showing results of 30%,[12] and Afroz *et al*. showed ovarian malignancy up to 29%.[11] The common presenting complaint was mass abdomen.

In another study, ovarian cancer was ranked high in Karachi and fourth in Lahore.[12] Ovarian cancers usually present late hence difficult to manage.[9,13]

The mean age at presentation of endometrial cancer was 46.9 years in our study, with most presenting in the range of 45-65 years, which was comparable with an age mentioned in another study, showing its more frequency in the fifth and sixth decade of life.[9,14]

Table-II: Different Histopathological Types

Cancer	Histopathology Type	2015 n (%)	2016 n (%)	2017 n (%)	2018 n (%)	2019 n (%)
Uterus	Adeno Carcinoma	8 (50.0)	13 (50.0)	5 (29.4)	11 (52.3)	10 (47.6)
	Squamous Carcinoma	0 (0)	1 (3.8)	1 (5.8)	0 (0)	1 (5.8)
	Clear cell Carcinoma	1 (6.2)	0 (0)	0 (0)	0 (0)	0(0)
Ovary	Endometroid	2 (12.5)	3 (11.5)	1 (5.8)	0 (0)	0 (0)
	Clear	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	Serous	4 (25.0)	4 (15.3)	2 (11.7)	5 (23.8)	3 (14.2)
	Mucinous	4 (25.0)	1 (3.8)	3 (17.6)	0 (0)	0 (0)
Cervix	Squamous cell	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	Adeno Carcinoma	0 (0)	1 (3.8)	1 (5.8)	1 (4.5)	1 (4.7)
	Adeno -squamous	0 (0)	0 (0)	0 (0)	1 (4.5)	1 (4.7)
Gestational Trophoblastic Disease	Choriocarcinoma	1 (6.25)	2 (7.6)	0 (0)	0 (0)	0(0)
	Molar pregnancy	2 (12.5)	1 (3.8)	4 (23.5)	3 (13.6)	4 (19)

DISCUSSION

Endometrial cancer was the commonest malignancy found in this study. However, the incidence of gynaecological cancers is high in developing countries, with approximately five million new cases diagnosed per year,[7] and it is responsible for the consumption of major health resources, so this issue must be addressed. In addition, data collection should be streamlined to identify the magnitude of the problem.

Our study reported endometrial cancer as the commonest tumour (47.6%), followed by ovarian and gestational trophoblastic disease.

Studies conducted in Tehran and India also focused on the higher incidence of endometrial cancers, up to 29%,[11] and 10.3%.[10] respectively. Another study by

Common histopathology among endometrial tumours were adeno CA with grade 2. (92.1%). Similar results were shown in the studies by Afroz *et al*.[11] and Madhutandra *et al*.[15]

In our study, cervical cancers were 5.6%. It is unusual in our community because of Islamic culture and practices. Multiple sexual partners culture is not part of our society, and women are monogamy.[16]

A previous study conducted in different parts of Pakistan also showed HPV as the most common cause of cervical cancer.[17] HPV is transmitted through the sexual route.[18]

Gestational trophoblast disease was 15.8% in our study, which was comparably high as compared to the 6% low incidence reported in another study conducted by Manzoor *et al.* at Quetta.[9] Incidence of vulvar tumours is very low in Asia compared to North America /Europe.[19]

More emphasis is required on women's awareness regarding the disease process. Access to medical help should also be improved**.** Free Screening programs should be arranged and offered to the population to reduce the burden of advanced-stage disease.

LIMITATIONS OF STUDY

Data collection was the most difficult task during this study. The main reason was inadequate data maintenance and follow up.

Conflict of Interest: None.

Author's Contribution

SMB; Introduction, RS: Method, result, VA: Discussion, AQ; Data connection.

REFERENCES

1. Temkin SM, Minasian L. The end of the hysterec-tomy epidemic and endometrial cancer incidence: what are intended consequences of declining hysterectomy rates? Front Oncol 2016; 6(1): 89-92. doi: 10.3389/fonc.2016.00089. eCollec-tion 2016.
2. Jetley S, Rana S. Morphological spectrum of endo-metrial pathology in middle-aged women with atypical uterine bleeding: A study of 219 cases. J Midlife Health 2013; 4(4): 216-220.
3. Pimple S, Shastri SS. Comparative evaluation of human papilloma virus -DNA test versus colposcopy as secondary cervical cancer screening test to triage screen positive women on primary screening by visual inspection with 5% acetic acid .Indian J Cancer 2014; 51(2): 117-123.
4. Ferlay J, Shin HR, Bray F . Estimates of world wide burden of cancers in 2008: GLOBOCAN 2008. Int J Cancer 2015; 127(12): 2893-2917. doi: 10.1002/ijc.25516.
5. Shetty M, Filho A. Early detection of Breast, Cervical ,Ovarian, and Endometrial cancers in Low Resource Countries: An Integrated Approach. Indian J Surg Oncol 2011; (2): 165 -171. doi 10.1186/s12889-015-2531-6
6. Parkin DM, Bray F, Ferlay J. Global Cancer statistics, 2002. CA cancer J Clin 2005; 55(2): 74-108. doi: 10.3322/canjclin.55.2.74.
7. Mishra K. Gynaecological Malignancies from Palliative Care Perspective. Indian J Palliat. Care 2011; 17(suppl): 45-51.
8. Alsop K, Feraday S. BRCA mutation, frequency and pattern of treatment response in BRCA mutation positive women with ovarian cancer. J Clin Oncol 2012; 30: 2654- 2663. doi: 10.1200/JCO.2011.39.8545
9. Manzoor H, Nahid H. Pattern of gynaecological malignancies in south western region of Pakistan: An Over review of 12 years. Biomedical Rep 2017; 7(5): 487-491.
10. Doyen J, Demolin S, Goffin F. Vulvar Skin Disorders throughout Lifetime. Biomed Res Int 2014; 2014: 1-6. doi: 10.1155/2014/595286.
11. Afroz S, Ara G, Sultana F. Pattern of Gynaecological Malignancies in a Tertiary Care Hospital. Open J Obstet Gynecol 2019; 9(4): 449-457. doi 10.4236/ojog.2019.94044
12. Bibi S, Ashfaque S, Laghari NA. A heartrending burden of gynaecological cancers in advance stage at nuclear institute of medicine and radiotherapy Jamshoro Sindh. Pak J Med Sci 2016; 32(1): 120-124.
13. Aniebue UU, Onyeka TC. Ethical, socioeconomic and cultural consideration in gynecologic cancers care in developing countries. Int J Palliat Nurs 2014; 1155(10): 141627.
14. Nnadi D, Singh S, Ahmed Y. Histopathological features of genital tract malignancies as seen in tertiary health center in north western Nigeria: A 10 years review . Ann Med Health Sci 2014; 4(3): 213-217.
15. Madhutandra S, Konar H, Raut D. Clinico-Pathological Features of Gynaecological Malignancies in a Tertiary Care Hospital in Eastern India: Importance of Strengthening Primary Health Care in Prevention and Early Detection. Asian Pacific J Cancer Prevent 2013; 14(1): 3541-3545.
16. AL-Hammadi F , AL-Tahiri F, AL-Ali A. Limited Understanding of Pap Smear Testing among Women, a Barrier to Cervical Cancer Screening in the United Arab Emirates. Asian Pacific J Cancer 2017; 18(12): 3379-3383.
17. Raza SA, Franceschi S, Pallardy S, Malik FR. Human papilloma virus infection in women with and without cervical cancer in Karachi Pakistan. Br J Cancer 2010; 35(10)102: 1657-1660.
18. Gul S. Awareness about the cervical cancer, human papilloma virus and acceptability of its vaccine among female university students of Peshawar. Asian J Agri Biol 2015; 3(3): 105 -111.
19. Okolo CA, Akang E. A review of vulvar and vaginal cancers in Ibadan Nigeria. N Am J Med Sci 2013; 6(2): 76-81.