PATTERN OF GYNAECOLOGICAL MALIGNANCIES IN TERITIARY HOSPITAL

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SUMMARY

This study was undertaken to look at the pattern of genital tract cancer in North West Part of Pakistan, and to compare it with data from other centers of Pakistan and neighboring countries which will help us to understand the causation of cancer between different ethnic groups. In a prospective review of 50 patients with genital tract cancer, Ca. ovary (48%) was the commonest malignancy. Ca-Cervix was observed in younger age group that is above 35 years with a mean age of 46 years while Ca.ovary (Mean age 48 years) and Ca. Endometrium (Mean age 52 years) was above 40 years and 45 years respectively. The mean age of presentation in Ca.vulva was 60 years and gestational trophoblatics neoplasm(GTN) was 38.7 years. Of Ca.ovary 54.2% had epithelial cancer while 45.8% had non epithelial cancer. The major contribution was of germ cell (25%)/Stromal Tumour 16.6% which is higher from the generally reported incidence of 3% and 6% respectively. This showed that germ cell/stromal cell tumour are more frequent in NWFP women. Sqamous cell carcinoma was 83.4% in Ca.Cx and 100% in Ca.Vulve while adenocarcinoma (85.8%) was more frequent in Ca.Endometrium. 75% (each) of cases were in stage III and IV in Ca.Ovary and stage II and III in Ca.Cx while in Ca. Endometrium 42.8% of the cases had stage-II lesion. This shows that most of our cases come to us in very advanced stage causing increase morbidity and mortality.

INTRODUCTION

Genital Tract (G.T) cancer have diverse pattern of distribution world wide, with ethnic, environmental and presentation variation. It accounts for about 10% of all cancer diagnosed in women.[1] It is the 2nd commonest malignancy in women after breast cancer.[2] The frequency of various G.T.

cancer Cervix (Cx.) Ovary, endometrium, gestational trophoblastic neoplasm (GTN) and Vulval Vaginal) varies considerably from country to country but world wide, Ca.Cx is the commonest and up to 80% of all Ca.Cx cases are detected in developing countries while in developed countries it is 3rd in frequency and ovarian cancer is the most frequent type.

About 85-90% of all malignant tumour in the ovary are epithelial tumour, 6% are sex cord, 3% germ cell and 1% miscellaneous.[3] Sqamous cell carcinoma accounts for 70-80% of cervical cancer and 90% of vulval cancer while the common histologic cell type in Ca. Endometrium is adenocarcinoma with most series quoting incidence between 60-85%.[4]

In Ca. Endometrium diagnostic delay are uncommon as perimenopausal or postmenopausal bleeding viewed as an ominous finding both by patient and physician. Also the diagnosis can be reliably established by outpatient endometrial biopsy. In other G.T. cancers the diagnostic delay are common, as the disease tends to be asymptomatic untill it is well advanced uptill now no statistical data is available from NWFP of Pakistan so the aim was to participate and provide detailed data to the Gynaecological Oncology Group Karachi (GOG). Our hospital is a tertiary care institute therefore this study may be considered as representative of the North West Part of Pakistan.

MATERIAL AND METHODS

This study was carried out in Obs/ Gynae "A" unit at Postgraduate Medical Institute, Lady Reading Hospital, Peshawar form 1st January 1995 to 31st December 1995.

A prospective review of 50 cases of G.T. cancer (admitted in one year period) with emphasis on age, anatomic areas, presentation, histologic type and stage of disease were studied. A detail proforma was made for each type of G.T cancer which was prepared according to the format recommended by the GOG Karachi. All patients had thorough evaluation by taking history, examination and investigation. Only biopsy proven cases were included in the study. The staging and grading system of the FIGO was used. We performed clinical estimation of the extent of the disease (staging) in all Ca.Cx and Ca.Vulva cases and confirmed by surgical staging while all patients with Ca.Ovary, endome-trium, G.T.N were evaluated surgically.

RESULTS

50 cases of G.T. cancer were admitted during one year period. The most frequent cancer was of ovarian 48%, followed by Ca.Cx 24%, Ca. Endometrium 14%, G.T.N. 8% and Vulval 6%. There was no case of vaginal cancer in this series (Table-1).

The risk of ovarian cancer increases above 40 years.[3] In a review of 24 cases of ovarian cancer there were 5 cases in 35-44 years age group (Table-2), but all were above 40 years. So there were 17(70.8%) cases above 40 years while only 7(29.2%) in 1st two groups were below 40 years and even those were of sex cord/germ cell origin which is a disease of younger age group. The mean age of presentation was 48 years.

RELATIVE FREQUENCY

Site	No.	% Age
Ca. Ovary	24	48%
Ca.Cervix	12	24%
Ca.Endometrium	07	14%
Gestational T.N.	04	08%
Ca.Vulva	03	06%
Total	50	

TABLE – 1

AGE DISTRIBUTION (In years)

Site	14-24	25-34	35-44	45-54	55-64	65-74	>75	M. age
Ca. Ovary	2	5	5	7	3	2	–	48 yrs
Ca. Cervix	–	1	5	5	–	–	1	46 yrs
Ca.Endometrium	–	–	1	4	1	1	–	51.2 yrs
Gestational T.N.	1	–	2	1	–	–	–	38.7 yrs
Ca.Vulva	–	1	–	–	–	2	–	60 yrs

TABLE – 2

13(54.2%) patients had malignant epithelial tumour, 25% had germ cell tumour, 16.6% had stromal tumour while 1(42%) had non hodgkin's lymphoma (Table-3). Of the epithelial cancer serous and mucinous adenocarcinoma were equal in number 38.5% (each). Although world-wide serous in 3-4 times more than that of mucinous variety.[5,6] The mean age of presentation in epithelial cancer was 52 years while the non-epithelial were mainly observed in younger age group with a mean age of 26 years.

About two thirds of patients with Ca.Ovary present with stage III and IV disease while one third (25%) with stage I and II (Table-5) which coincide with the finding of other centers in Pakistan.[7] Most common presenting complaints were abdominal distension.

Ca. Cx. was 2nd commonest malignancy in our study (Table-1). The mean age at diagnosis was 46 years. Majority of the patients were above 35 years in the age group 35-44 and 45-54 years while only one patient (14.2%) was at the age of 34 years (Table-2). 10(83.4%) patients had sqamous cell carcinoma while the frequency of adeno and adenosqamous carcinoma was 8.3% each (Table-4), which is in the previously reported range form 4.9% to 20%.[8] Clinical staging of Ca.Cx showed that 75% of cases were in stage II (41.7%) and stage III (33.3%) (Table-5). We did not pick up any case in pre invasive stage because pap smear or colposcopy is not done

HISTOLOGICAL TYPES (OVARY)

	Cell Type	No	% Age
Epithelial 13(54.2%)	Serous Adenocarcinoma	5	38.5%
	Mucinous Adenocarcinoma	5	38.5%
	Endometrial Adenocarcinoma	2	15.3%
	Clear Cell	1	7.7%
Germ Cell 6(25%)	Dysgerminoma	2	33.3%
	Endodermal sinus tumour	2	33.3%
	Malignant teratoma	1	16.7%
	Ovarian Choriocarcinoma	1	16.7%
Sex Cord 4(6%)	Granulosa cell tumour	4	–
Miscellaneous 1(4.2%)	Non Hodgkin's Lymphoma	1	–

TABLE – 3

HISTOLOGICAL TYPES

Site	CCU types	No	% Age	M. Age
Ca. Cervix 12	Sqamous cell carcinoma Adenocarcinoma Adenosqamous carcinoma	10 01 01	83/4% 8.3% 8.3%	48 yrs 38 yrs 38 yrs
Ca.Endometrium 07	Adenocarcinoma Papilary serous carcinoma	06 01	85.8% 14.2%	43.2 yrs 70 yrs
G.T.N 04	Choriocarcinoma Invasive Mole	03 01	75% 25%	38.3 yrs 40 yrs
Ca. Vulva 03	Sqamous cell carcinoma	03	100%	60 yrs

TABLE – 4

as a routine in Gynae OPD only suspicious cases were screened. Almost half (50%) of the patients had irregular bleeding per vaginum lasted for 5 months to 2 years before they sought any medical advise.

Ca. Endometrium was 3rd commonest malignancy in our study (Table-1). The mean age of presentation were 51.2 years. Majority (85.7%) of cases was at or above the age of 45 years (Table-2). 85.8% of the cases were adenocarcinoma (Table-4). 57.1% of the cases had surgical stage-I (Table-5). The reason being that it is symptomatic early in their course so usually diagnosed at an early stage. The most common presenting symptoms was postmenopausal bleeding and 28.6% each were diabetic and obese.

There were 4 cases of G.T.N with mean age of 38.7 years. 3(75%) out of 4 were at or above 40 years (Table-2). 75% had choriocarcinoma (Table-4). According to anatomic staging by FIGO we had 75% of patients in stage-I. The commonest presenting symptom was vaginal haemorrhage 66% cases of choricarcinoma were preceded by hydatidiform mole while 3% by a history of previous abortion.

6% cases of G.T. cancer were of Ca Vulva with mean age of presentation 60 years. 2(66.7%) cases were between 65-74 years age group (Table-2). All cases with Ca.Vulva were of Sq.cell carcinoma and had stage II lesion with tumour size more than 2 cm and no lymph node involvement (Table-4 & 5). All patients had complaints of pruritis vulva of 6-8 months duration.

DISCUSSION

In our study Ca.Ovary (58%) was the most frequent type which is comparable

STAGE OF DISEASE

Site	Stage-I	Stage-II	Stage-III	Stage-IV	T. No.
Ca. Ovary	3 (12.5%)	3 (12.5%)	14 (58.3%)	4 (16.6%)	24
Ca. Cervix	1 (8.3%)	5 (41.7%)	4 (33.3%)	2 (16.7%)	12
Ca.Endometrium	4 (75%)	2 (28.6%)	–	1 (14.2%)	07
G.T.N.	3 (75%)	1 (25%)	–	–	04
Ca. Vulva	–	3 (100%)	–	–	03

TABLE – 5

with the frequency in northern Pakistan,[9] U.K and Scandinavian countries.[3] While in southern[10] part of our country and some developing countries like Africa, South America and India[11] Ca.Cx is the most frequent among G.T. cancer. However in our series Ca.Cx (24%) was 2nd in frequency. Ca. Endometrium (14%) is 3rd in number in our study as well as other centres in Pakistan.[9,10,12] Gestational T.N constituted 8% while Ca. Vulva were 6% in our study but it is relatively higher figure as compared to 4.5% in PMRC study.[10] World wide distribution shows poorly association between poorly developed countries and incidence of Ca.Vulva. The risk of ovarian and uterine cancer is low before 40 years of age and increases with age thereafter[3] the same was in our study (Table-2). Our results showed that Ca.Cx tends to occur in a younger age group that is above 35 years with a mean age of 46 years while ovarian (mean age 48 years) and Endometrial. Ca (mean age 52 years) shows an increase during the perimenopausal years (that is above 40 years and 45 years respectively). Actually this is a period characterized by anovulatory cycles and hypergonadotropism so the conclusion or advise will be that combined oral contraception use should be encouraged as they help to prevent endometrial Ca by about 50% and Ca.Ovary by about 30-60%, while barrier method of contraception should be encouraged in younger sexually active women to prevent Ca.Cx.

Non epithelial cancer of the ovary (45.8%) in our study is 4 times higher than that reported in the world (10%) and 2 times higher than that observed in other centres of Pakistan.[12,12,7] The major contribution to this was of germ cell (25%) and gonadal stromal tumour (16.6%) as generally reported incidence is 3% and 6% respectively.[3] A recent study in Qatar suggest rarity of germ cell and gonadal stromal malignancies in women of Arab and Indian subcontinent descent.[2] The conclusion is that ovarian malignancies of germ cell/stromal origin is more frequent in North West region of Pakistan. The increased prevalence of mucinous adenocarcinoma as compared to other series in our women may be related to genetic environmental or racial factors.[5,6]

In our study Sq. cell carcinoma was the most common invasive malignancy of the Cx (83.4%) and vulva (100%), while adenocarcinoma was the most frequent type is the uterine corpus (85.8%) and ovary (54.2%) which means that there are dominant histologic groups in each female genital tract site that is largely responsible for incidence and statistics. With in the groups however there are sub-types with differing features.

The difference of age among patients with different tumours types of Cx (Table-4) was also noted by hopkins and Morleys, the use of oral contraceptive and human papiloma virus infection which is more common in younger patients, may account for this difference.[14]

In cases of cancer of the uterus most cases were confined to the uterus at diagnosis (Stage-I). While 75% of cases (each) were in stage II and III in Ca.Cx and Stage III and IV in Ca. Ovary. This shows that most of our cases come to us in a very advanced stage. In order to pick up these cases at an early stage we have to increase the hospital facilities for screening of female population and educate our women that report for medical check up early. At present in America, approximately half of the overall number of invasive Ca.Cx are at an early sage which is due to the availability of cervical cytology screening and colposcopy. In our set up at least we have to encourage more frequent pelvic examination as noted by hopkins and Morley's,[14] who found the incidence of stage-I disease decreasing with in-

creasing interval between gynecological examination.

All cases with Ca.Vulva had stage II lesion with ulcerative lesion of 3x3 cm and main symptoms of pruritis vulva of 6-8 months duration. This also indicate that either our people gets proper medical advise very late or physician failure to diagnose very early.

CONCLUSION

From our study we concluded that in addition to the difference in prevalence of various G.Tract Cancer between countries, a large difference is also observed between registries in the same country. This may be explained by the existence of different racial or ethnic groups and various exposure to major risk factors. Tumour registry services should be organised in countries to get a global picture of cancer distribution world wide, in order to understand the causation of cancer.

Hospital facilities for screening and regular gynaecological examination and well-designed follow up surveillance system can change the disease morbidity and mortality.

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