RESEARCH ARTICLE

DEMOGRAPHIC PROFILE OF CANCER ENDOMETRIUM A STUDY CONDUCTED IN SHER-I-KASHMIR INSTITUTE OF MEDICAL SCIENCES SRINAGAR KASHMIR INDIA. A RETROSPECTIVE STUDY

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ABSTRACT

Introduction: Endometrial cancer is the most common gynecologic cancer and the fourth most frequently diagnosed cancer in women in the United States. According to 2018 cancer statistics, the estimated number of newly diagnosed cases is 63,230, with a probability of 1 in every 35 women (2.8%) developing it during her lifetime. To date, there is limited knowledge of endometrial cancer in Kashmir India. **Objectives:** The aim of the present study was to analyze the demographic spectrum of endometrial cancers in Kashmir valley. **Material and Method:** This was a retrospective study, So all patients were included who had Histopathologically confirmed endometrial neoplasm registered at Regional Cancer centre of Sher-i-Kashmir Institute of Medical Sciences, Srinagar Kashmir between 2008 and 2015. All the patient characteristics including age, presentation, type of cancer, stage of cancer, parity, treatment received in each case was studied in detail. **Results:** The present study included 80 patients of endometrial cancer. Mean age of presentation in our study was 55±0.63 years. Majority of endometrial cancers where of adenocarcinoma histology (81%) followed by sarcoma (10%) and papillary serous type (9%). The major clinical presentation was vaginal bleeding (85 %) followed by pelvic pain (28 %) and ascites (8 %). So far as evaluation is concerned, most of the cases (90%) where diagnosed by D&C and Pelvic USG. Majority of patients presented at stage I (60%) followed by stage III (18%). **Conclusion:** In conclusion, early detection will reduce the number of death of endometrial cancer patients. A significant number of endometrial cancer patients in Kashmir present with early stage of disease and probably due to clinical presentation in our centre that major clinical presentation was vaginal bleeding followed by pelvic pain. Endometrial cancers are observed at an middle age group that is more than 40 years of age . People should be educated for an early consultation for symptoms and high risk individuals should be encouraged for screening. The health programmes about endometrial cancer should be carried out in open places to give more information about endometrial cancer to the public.

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INTRODUCTION

Endometrial cancer is the most common gynecologic cancer and the fourth most frequently diagnosed cancer in women in the United States. According to 2018 cancer statistics, the estimated number of newly diagnosed cases is 63,230, with a probability of 1 in every 35 women (2.8%) developing it during her lifetime (Siegel RL *et al* 2018)[1]. Although it is a cancer that affects predominantly postmenopausal women, 14% are diagnosed in premenopausal women, with 5% being younger than 40 years. (Morice P *et al*., 2016). Only less than 20% of endometrial cancers occur before menopause {Engelsen *et al*., (2009)[3]. The prognosis is generally good, as the cancer is often diagnosed while the tumour is confined to the uterine corpus. The overall survival rate is about 75% {Danforth's Obstetrics and Gynecology, (2003), and depends on the stage and subtype of the cancer. The risk of endometrial cancer increases with obesity, diabetes, hypertension, nullparity, and hormonal replacement therapy (HRT) and tamoxifen therapy. Increasing age and a family history of hereditary non-polyposis colorectal cancer syndrome are also risk factors for endometrial cancer (Amant *et al*., 2005). The standard diagnostic evaluation for endometrial cancer includes pelvic ultrasonography, transvaginal ultrasonography, office endometrial biopsy, or dilatation and curettage (D&C) with or without hysteroscopy. Other modalities include computed tomography (CT) scan, magnetic resonance imaging (MRI), and integrated positron emission tomography and computed tomography (PET/CT) scan. Although most women diagnosed withendometrialcancerpresentwith early-stage disease confined to the uterus, metastatic disease is identified in a significant percentage when comprehensive staging is performed (Creasman *et al*., 1987).

In 1988, the International Federation of Gynecologists and Obstetricians (FIGO) formally recommended surgical staging as part of the initial treatment for endometrial cancer. The most common adjuvant treatment considered for endometrial carcinoma has been radiation therapy; chemotherapy has traditionally been deemed ineffective (Maggi *et al*., 2006).

MATERIALS AND METHODS

This was a retrospective study, So all patients were included who had Histopathologically confirmed endometrial neoplasm registered at Regional Cancer centre of Sher-i-Kashmir Institute of Medical Sciences, Srinagar Kashmir India between 2008 and 2015. All the patient characteristics including age, presentation, type of cancer, stage of cancer, parity, treatment received in each case was studied in detail.

Statistical analysis

Descriptive analysis was used to report the study results. Categorical data were summarized as percentage. We analyzed the cancer characteristics according to age, presentation, type of cancer, stage of cancer, parity and treatment. The aim of the present study was to analyze the demographic spectrum of endometrial cancers in Kashmir valley.

RESULTS

Endometrial cancer is mostly encountered in postmenopausal women and is rare before age of 40 years. The present study included 80 patients of endometrial cancer registered. Most common age group was in 51-60 years (33%) followed by 28% in age group of 41-50 years. Mean age of presentation in our study was 55±0.63 years. Among the patients affected 85% were more than 40 years of age as shown in table 1. Ninety-eight percent of cases had no family history of disease, however only one case (1.25%) had family history of endometrial cancer. Majority of endometrial cancers where of adenocarcinoma histology (81%) followed by sarcoma (10%) and papillary serous type (9%).

Majority of patients in our study where from rural area as majority of population of Kashmir valley is from rural background. The major clinical presentation was vaginal bleeding (85 %) followed by pelvic pain (28 %) and ascites (8 %) as shown in table 2. In the present study majority of patients with endometrial cancer where non smokers (89%). So far as evaluation is concerned, most of the cases (90%) where diagnosed by D&C and Pelvic USG. Majority of patients presented at stage I (60%) followed by stage III (18%), stage II (14%) and stage IV (8%) shown in table 3. In the present study all medically operable patients (83%) diagnosed with endometrial cancers underwent surgery.

Table 1. Distribution of Endometerial Cancer Patients According to their Age

Age interval(yrs)	Number	Percent
30- 40	6	9
41 - 50	26	28.8
51 - 60	29	33.3
61 - 70	17	25.8
70+	2	3
Total	80	100
Mean Age ±SD	55±0.63 years	

Most common age group at presentation in our patients was 51-60 year

Table 2. Distribution of endometrial cancer patients according to their symptoms and signs

S. No	Symptom & Signs	Status	Number	%
1	VaginaL Bleeding	Present	68	85
		Absent	12	15
		Total	80	100
2	Pelvic Pain	Present	22	28
		Absent	58	73
		Total	80	100
		Present	6	8
3	As cites	Absent	74	92
		Total	80	100

Vaginal bleeding was most common symptom at presentation

Table 3. Distribution of endometerial cancer patients according to investigations performed and stage

S.No	Investigations	Status	Number	%
1	Dignostic Curretage	Performed	68	85
		Not performed	12	15
		Totol	80	100
2	USG Abdomen	Performed	67	84
		Not performed	13	16
		Total	*80*	100
3	CT Abdomen/Pelvis	Performed	68	85
		Not performed	12	15
		Total	80	100
4	Stage	I	48	60
		II	11	14
		III	15	18
		IV	6	8
		Total	80	100

Most of the patients in our study were diagnosed by diagnostic curettage

Treatment modalities

Treatment plan was made according to the stage of presentation assessed by clinical examination, radiological findings. Operability and type of surgery was assessed by the operating surgeon by clinical examination and examination under anesthesia. Adjuvant chemotherapy and radiotherapy was given according to protocols.

DISCUSSION

The incidence of endometrial cancer will increase in line with the ageing of the female population and in elderly women, this cancer is more aggressive yet often undertreated (Renehan *et al*., 2004). Endometrial cancer is mostly encountered in postmenopausal women and is rare before age of 40 years. Mean age of presentation in present study was 55±0.63 years. Among the patients affected 85% were more than 40 years of age. These findings corroborate with findings of Engelsen *et al*. (2009) and Jick *et al*. (1980) from USA also reported similar findings with mean age of diagnosis as 60 years. Majority of patients in present study where from rural area as majority of population of Kashmir valley is from rural background. The most common presentation for endometrial cancer is postmenopausal vaginal bleeding, which is reported by 80% to 90% of patients. The incidence of endometrial cancer in women presenting with postmenopausal bleeding is only 10% to 15%. A study conducted by Creasman *et al*. (2003) who reported that most common symptom of endometrial cancer is vaginal bleeding. Similar results were found in our study, that major clinical presentation was vaginal bleeding (85 %) followed by pelvic pain (28 %) and ascites (8 %). Majority of patients with endometrial cancer where non smokers (89%) which is in corroboration with study of Felix *et al*. (2014) who concluded inverse relationship between endometrial cancer and smoking.

The present study points towards the fact that all of our patients having endometrial cancer had not used contraceptives. This finding reinforces the notion that contraceptives have protective effect on development of endometrial cancer (Cramer, 2012) and IARC report of (1999). Family history of hereditary like non-polyposis colorectal cancer syndrome are risk factors for endometrial cancer. In present study only one case (1.25%) had family history of endometrial cancer, however 98.75% of cases had no family history of disease. This could be due to the fact that a small percentage of endometrial carcinomas are related to hereditary factors like in study conducted by Burke *et al.* (2014) where they found same results. Endometrial adenocarcinoma is the most common endometrial carcinoma constituting 75% to 80% of all cases. In present study majority of endometrial cancers where of adenocarcinoma histology (81%) followed by sarcoma (10%) and papillary serous type (9%). These findings are in concurrence with established reports of (Silverberg *et al.*, 1991). Endometrial tissue sampling remains the gold standard by which the diagnosis of endometrial cancer is established. This is achieved via biopsy or dilation and curettage (D&C). In present study most of the cases (90%) where diagnosed by D&C and Pelvic USG. This is in concurrence with study by Tavassoli *et al.* (1993) where in most of cases were diagnosed by D & C.

In this study primarily USG (84%) and CT (85%) of abdomen/pelvis where used for assessing extent of disease. This is as per standard practices followed worldwide SGO Clinical Practice Endometrial Cancer Working Group (Burke *et al.* 2014). Higher FIGO stage was associated with greater endometrial cancer death rates. Tumor staging in our study was at 60% stage I followed by stage III (18%), stage II (14%) and stage IV (8%). This is in accordance with study carried out by Sorosky, (2008) who also reported that majority of endometrial cancers about 70% had stage I presentation followed by stage III (13%), stage II (12%) and stage IV (3%). In the present study all medically operable patients (83%) diagnosed with endometrial cancers underwent surgery. In the present study about 40 % of cases received adjuvant radiation therapy. This is in corroboration with guidelines by SGO Clinical Practice Endometrial Cancer Working Group (Burke *et al.* 2014), FIGO and NCCN guidelines 2014. The limitations of our study were, more often the patients were referred to other center, and most of patients were registered and treated at other cancer center government medical college in kashmir valley. Hence, our study group may not exactly reflect the prevalence and incidence of endometrium cancer in the whole population in this region. Despite these limitations, our institution being a major oncology centre in this region, it may reflect the nature of the disease in this population and emphasizes the significance of early diagnosis by proper and timely evaluation, and management of the disease.

Conclusion

In conclusion, early detection will reduce the number of deaths of endometrial cancer patients. A significant number of endometrial cancer patients in Kashmir present with early stage of disease and probably due to clinical presentation in our centre that major clinical presentation was vaginal bleeding followed by pelvic pain . Most of the cases (90%) where diagnosed by D&C and Pelvic USG. Endometrial cancers are observed at an middle age group that is more than 40 years of age . People should be educated for an early consultation for symptoms and high risk individuals should be encouraged for screening. The health programmes about endometrial cancer should be carried out in open places to give more information about endometrial cancer to the public.

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