# ANALYSIS OF PRESENTING COMPLAINT, RISK FACTORS AND MANAGEMENT PROTOCOL IN PATIENTS WITH UTERINE CANCERS

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## ABSTRACT

Endometrial cancers represent over 96% of the uterine cancer and are the most common gynecological carcinoma in developed countries.

**Purpose:** To ascertain the presenting features, identify the risk factors and analysis of treatment method opted in endometrial carcinomas.

**Materials and Methods:** Observational study of 84 patients with proven endometrial cancers, who reported during 2010 to 2011 in Mayo and services hospital Lahore. Performa included demographic variables along with presenting complaints, risk factors and management data. Data was analyzed by SPSS version 16 and results compiled.

**Results:** The mean age was 58.5 years, mean parity 2.5 with mean age at marriage at 25. Major presenting complaint was irregular vaginal bleeding (33.3%). Most common associated risk factor observed was irregular exogenous hormone intake 26.19%. Total 91.66% cases underwent surgery while 8.33% were in late inoperable stage.

**Conclusion:** Patients with irregular vaginal bleeding specifically in postmenopausal period should be thoroughly evaluated for endometrial carcinoma even in the absence of any associated risk factor.

## INTRODUCTION

Carcinoma of endometrium is the most common cancer of the female reproductive organs. It is rare in women under age of 45. Most of the cases (about 3 out of 4) are found in women aged 55 and over. The average chance of a woman being diagnosed with this cancer during her lifetime is about 1 in 37 [1]. Unfortunately the incidence of endometrial cancer is increasing with peak age range at diagnosis is between 60-79 years, the average at 63 years [2]. Survival in the patients with endometrial cancers is dependent on the stage of cancer at initial presentation; early stage disease has five year survival rate of 83% and at advance stage is 26% [3]. There are certain kinds of risk factors which are associated with endometrial carcinoma. Some of these cannot be changed e.g. age and race while others are of personal choice e.g. smoking, body weight, exogenous hormones etc [4]. The major risk factors are obesity, hypertension and diabetes mellitus. Endometrial carcinoma is twice common in overweight woman while 3 times more common in obese women whereas it is 4 times more common in diabetes mellitus [5]. Exogenous estrogen replacement or endogenous excess estrogen in PCO and ovarian tumours also increases the risk of endometrial cancers. Although these factors increase the risk of development of endometrial carcinoma but they do not always cause the disease [4].

The most common presenting symptom is irregular vaginal bleeding about 90% of the patient diagnosed with endometrial cancers have abnormal vaginal bleeding in post menopausal women non-blody vaginal discharge is also associated with endometrial cancers in 10% of ladies. Pain in the pelvis, feeling of mass or weight loss can also be related to the endometrial cancer [6].

After the diagnosis, the endometrial cancer can be treated with surgery, radiotherapy, chemotherapy and hormonal therapy. Surgery is the main stay of treatment in most of the cases but in certain situations a combination of these treatments may be used. The choice of treatment depends largely on the type of cancer and stage of disease when it is found [7, 8]. In this study of 84 patients, we ascertained the presenting features identified the risk factors and analyze the different treatments opted for these patients at different set ups. The main objective is to evaluate and provide state of art management for the patients with uterine cancers.

## MATERIAL AND METHODS

This is an institution based study to evaluate the presenting features, risk factors and treatment protocols. A total number of 84 patients were included who reported to Mayo and services hospitals Lahore, with uterine cancers during two years i.e. 2010 to 2011. A written informed consent was taken to participate in the study. A Performa was devised to address all relevant data for study that including age, marital status, parity, presenting complaint, associated risk factors, staging and treatment modality opted. Before the opted treatment protocol patient had baseline evaluation including:

(1) medical history and physical abdominal vaginal and rectal examination (2) Pathology review of biopsy specimen (3) Blood tests including complete blood count, asparate aminotransferase, salanine aminotransferase, alkaline phosphate, total bilirubin serum creatinine. (4) Imaging studies i.e. chest X-Ray, bone scan, abdominal USG, computed tomography scan of abdomen and pelvis. (5) FIGO staging of the disease.

Management data includes surgical procedures alone or followed by radiotherapy or radiotherapy alone. The protocol treatment was carried out according to the stage of disease i.e. for early stage disease. Surgery including hysterectomy and bilateral salpingoophractomy with radiation treatment. 4 weeks after surgery while in advance disease patients were evaluated and subjected to external beam radiotherapy and brachytherapy according to international anatomic commission. At the end statistical data was analyzed and results were compiled.

## RESULTS

Eighty four patients were enrolled for the study during 2010-2011. The median age of the patient was 58.5 years at the time of reporting in the institution. Mean parity was 2.5 and age at marriage was 25 years. Majority of the patients presented with irregular vaginal bleeding (33.3%), 2nd most common symptoms was postmenopausal bleeding (30.91%). Rest of the patients present with vaginal discharge (15.47%), lower abdominal pain (10.71%) and mass lower abdomen (9.5%) (Table-I), In table-2 the associated risk factors are enlisted. Most common associated risk factor is irregular hormonal intake (26.19%), while 22.6% has no associated risk factors. Diabetes (13.09%). Hypertension and obesity (9.5%) and nulliparity (8.31%) were the other associated risk factor in rest of patients.

Regarding the treatment option 89.28% of the cases underwent TAH+BSO, 1.19% had vaginal hysterectomy and 1.19% had staging laparotomy. While 8.33% of the cases were in the late inoperable stage.

Table IV shows the details of patients who receive radiotherapy. Total 88% had radiotherapy through different techniques. Majority of the patient receive only one session of radiotherapy 27.37%. 48.8% were treated with external beam radiotherapy. While 12% of the cases did not receive any radiation.

**Table I:** Presenting Complaints

| Sr. No. | Symptoms | No. of Patients | Percentage |
|---|---|---|---|
| 1 | Irregular bleeding | 28 | 33.3 % |
| 2 | Vaginal Discharge | 13 | 15.47 % |
| 3 | Lower abdominal pain | 9 | 10.71 % |
| 4 | Post menopausal bleeding | 26 | 30.9 % |
| 5 | Mass lower abdomen | 8 | 9.5 % |

**Table II:** Associated Risk factors

| Stage | Risk factors | No. of Patients | Percentage |
|---|---|---|---|
| 1 | Nulliparity | 7 | 8.3 % |
| 2 | Diabetes Mellitus | 11 | 13.09 % |
| 3 | Irregular exogenous harmone intake | 22 | 26.19 % |
| 4 | Late menopause | 9 | 10.7 % |
| 5 | Hypertension | 8 | 9.5 % |
| 6 | Obesity | 8 | 9.5 % |
| 7 | No risk factors | 19 | 22.6 % |

**Table III:** Operative Proceedure

| Sr. No. | Operative procedure | No. of Patients | Percentage |
|---|---|---|---|
| 1 | TAH + BSO | 75 | 89.28 % |
| 2 | Vaginal Hysterectomy | 1 | 1.19 % |
| 3 | Staging Laparotomy | 1 | 1.19 % |
| 4 | Inoperable | 7 | 8.33 % |

**Table IV:** Radiotherapy

| Sr. No. | Radiation technique | No. of Cases | Session | % age | Doses / durations |
|---|---|---|---|---|---|
| 1 | Manchester Technique TAH with BSO not done | 6 | 1 | 7.14 % | Average duration in hours for 1st, 2nd session 75 hours |
| | Intracavitary radiation | 1 | 2 | 1.19 % | |
| | Total | 7 | 3 | 8.33 % | |
| 2 | After loading technique | 17 | 1 | 20.2 % | Average dose given in regular insertion 850 CGY. Average dose given in vault insertion 950 CGY |
| | with TAH + BSO | 9 | 2 | 10.7 % | |
| | Total | 26 | 3 | | |
| 3 | External radiation | 7 | 3000 – 3500 | 8.33 % | Majority cases average 4000 – 4500 CGY. (1000 rad / week) |
| | | 26 | 4000 – 4500 | 30.9 % | |
| | | 8 | 5000 – 5500 | 9.52 % | |
| 4 | No radiotherapy | 10 | | 12% | |

## DISCUSSION

Endometrial cancer is the most common gynecologic malignancy and fourth most common cancer in women, comprising 6% of female cancers. Although, absolute number of new cases of endometrial cancer each year is similar between develop and developing countries, it occurs in a higher percentage of the population in developed countries [9].

In our study we studied 84 women who are enrolled with diagnosed endometrial carcinoma. After recruitment in the study we analyze with risk factors, presenting complaints and treatment methodology opted for these patients.

Obesity is a strong modifiable risk factor for endometrial carcinoma. In our study it is present in 9.4% of cases while it is implicated in 40% of the cases in the study conducted by Reeves GK et al. This gross difference is mainly due to the difference of BMI in our several populations with western countries [10]. Post menopausal obesity is consistently linked to increased circulating level of estrogen which likely accounts for excess endometrial cancer in heavier women [11]. Exposure of the endometrium to unopposed estrogen is a common cause of endometrial cancer. In our study irregular exogenous hormone intake was present in 26.19% of the cases which is comparable to Friedenrech con et all who presented hormonal intake in 25.7% of the cases with endometrial cancer [12]. Pregnancy results in large changes in endogenous estrogen and progesterone level due to this endometrial cancer has reduced prevalence in the patients with increased number of kids. In our study 8.3% of patients with endometrial cancer were nulliperas which is similar to Setiawan RW et all who shows increased risk of endometrial cancers in nulliperas in their study [13]. Diabetes mellitus and hypertension are documented risk factors for endometrial cancers. In our study diabetes was found in 13.09% of cases and hypertension was detected in 9.5% of cases which is very much similar to Friedenrech CM et al who shows diabetics in 12.1 % 9 cases with endometrial carcinoma [12]. As long as the presenting features of the patients with endometrial cancers are concerned postmenopausal bleeding and abnormal uterine bleeding are most common presenting complaints in patients with endometrial carcinoma.

In our study irregular vaginal bleeding constitutes 33.3% and post menopausal bleeding is present in 30.9% of cases. Bubus N et al document in their study that 10% of women presenting with postmenopausal bleeding will be diagnosed with endometrial CA [14]. Other common presenting complaints of the patients with CA endometrium are vaginal discharge lower

abdominal pain and mass lower abdomen (15.41%, 10.7% and 9.5%) which is also documented by Dinkelspel HE et al in their study [9]. As long as the treatment methodology is concerned it depends upon the stage of the disease. Surgery is main stay of treatment in most of endometrial carcinoma patients worldwide. In our study 91.66% underwent different kinds of surgeries while only 8.34% were inoperable. Out of these 39.23% receive brachytherapy while 48.75% receive external radiation.

## CONCLUSION

As majority of patients with endometrial cancers are not treated at specialist gynecological oncology centers. It is very important to anticipate the endometrial CA in patients with above mentioned risk factors and presenting features so that they can be referred to proper centers for appropriate staging and treatment of the patients

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