

Corpus Cancers : A Clinicopathological Audit

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Summary

Corpus cancer ranks third among the gynecological cancers in our hospital. In our series of 67 corpus cancers, endometrial carcinoma was seen in 84% while sarcomas were detected in 16%. Aggressive histological subtypes like papillary serous, clear cell carcinoma and sarcomas presented at a more advanced stage. Leiomyosarcomas occurred comparatively at a younger age while mixed mullerian tumours were seen in older women. Comparing the risk factors between sarcomas and endometrial cancers we found only obesity and low parity to be significantly more in endometrioid adenocarcinoma. With increasing life span, the incidence of aggressive endometrial cancers and sarcomas are expected to increase. Hence it is imperative to maintain a high index of suspicion and evaluate postmenopausal bleeding thoroughly even in our country.

Introduction

Endometrial carcinoma and uterine sarcomas are essentially diseases of women in the perimenopausal and postmenopausal age. Carcinoma endometrium is the most common gynecological cancer in western countries. Though it is an uncommon disease in India, its incidence has been on the rise. Fortunately majority of the patients are detected in stage I and have good prognosis. Nevertheless it is important to identify the subgroup with more aggressive disease and improve their survival.

Objective

To evaluate the clinical characteristics and pathological subtypes of uterine malignancies.

Subjects and Setting

Sixty seven patients who were diagnosed to have corpus cancers in the department of Gynecology, Kasturba Medical College Manipal.

Methods

A retrospective review of patients treated for malignancies of uterus were done from 1983 to 1997, a period of 15 years. Incidence, types and subtypes were analysed. The clinical risk factors such as age, parity, associated medical disorders were evaluated and correlated with histological types.

Results and Observations

Uterine cancer constituted 6% of all gynecological cancers treated in our department. Table I shows the proportion of various cancers of the genital tract in our centre.

Table I : Incidence of Genital Cancers

Cancers of Genital Tract	Percent
Cervix	62
Ovary	29
Uterus	6
Vagina	2
Vulva	1

The ratio of carcinoma cervix to uterus is 10: 1 in our series. Among the 67 cases of uterine cancers, there were 56 cases of carcinoma endometrium and 11 cases of sarcomas of uterus.

Age of the patients ranged from 35 to 80 years with the median age of presentation being 58 years. Both youngest and the oldest patient had sarcoma of the uterus. Median age of menopause for the whole group was 47 years. Eighty two percent of patients were postmenopausal; postmenopausal bleeding was therefore the most common mode of presentation. Among the premenopausal patients, menorrhagia was the most frequent symptom. Mass per abdomen was the presenting complaint in two cases with sarcoma uterus.

One of the premenopausal patients who reported with polymenorrhagia of 2 months duration had Copper T for 5 years. Curettage done after removal of Copper T revealed endometrial cancer.

Table II shows the various histological subtypes encountered in our series.

Type A includes the more common histological variants with good prognosis such as endometrioid and adenoacanthoma while type B includes the aggressive variants, which have poor prognosis. Uterine sarcomas occurred in 16% of cases. All 5 cases of leiomyosarcoma occurred in women below 60 years while 4 of the mixed mullerian tumours occurred after the age of 65 years.

Prevalence of diabetes (16%) hypertension (34%) and Obesity was 21% in the whole series.

Table III compares the clinical, reproductive and medical risk factors in the three groups.

Corpus cancer syndrome consisting of obesity, hypertension, diabetes with endometrial cancer was seen in 7.5% of patients. Comparing various known risk factors, we found that only low parity and obesity were significant in type A while other medical and reproductive factors didn't show any significant difference between the different histological variants. Sixty two percent of women in type B had more than 5 conceptions. Elderly women above 70 years had significantly higher incidence of sarcomas.

Thirty-seven cases seen till 1989 had clinical staging while the majority of the remaining 30 cases seen after that had surgicopathological staging. Fifty-seven percent of patients were in stage I, 9% in stage II, 24% in stage III and 10% in stage IV.

Type B endometrial carcinoma of poor prognosis variety and sarcomas were significantly found in advanced stage compared to endometrioid adenocarcinoma. All except one case with leiomyosarcoma presented in stage I while all the mixed mullerian cases were in stage III and IV.

Both cases of papillary serous carcinoma were

Table II
Histological subtypes of Corpus Cancers

Type A	Endometrial carcinoma N=56		Sarcomas N=11		
		Type B			
Endometrioid Ca	39	Papillary Serous	2	Leiomyosarcoma	5
Adenoacanthoma	4	Squamous cell	2	Endometrial Stromal	1
		Adenosquamous	4	Mixed Mullerian	5
		Undifferentiated	4		
		Clear cell	1		

Table III
Risk factors and histological subtypes

Risk Factors	Sarcoma %	Endometrial Carcinoma	
		Type A %	Type B %
Age at last delivery < 35 years	55	53	54
Age at menopause > 50 years	27	26	31
Age > 70 years	27	5	8
Stages III & IV	45	25	53
Diabetes	18	21	15
Hypertension	36	40	15
Obesity	0	30	8
Low Parity / Nulliparity	40	67	31

in stage IV at presentation. Associated fibroids were a frequent finding in Type A endometrial cancers and sarcomas. Endometrial hyperplasia and adenomyosis were seen in 4 patients with endometrioid cancers.

Surgery was the first line therapy in 84% of patients while only radiotherapy was offered for 12%. Adjuvant radiotherapy was given for 76% of the operated cases. Adjuvant hormones and chemotherapy was used in 15% and 9% respectively.

Follow up has been poor. One patient died during treatment while 2 were discharged moribund. All these three cases had type B endometrial carcinomas, which are aggressive histological variants. Both cases with primary squamous cell cancers were given combined therapy with surgery and radiotherapy though they were in stage Ia. But they returned with recurrence in the pelvis and distant metastases within one year. Foot metastases were seen in a case with carcinosarcoma.

Discussion

Corpus cancer is an uncommon malignancy in the Indian female; its ratio to carcinoma cervix being 1:10 in our series. Nevertheless there is a rising trend. Majority of patients with endometrial cancer are detected in stage I and have good prognosis. However it is important to identify the subgroup with more aggressive disease and improve their outcome. Endometrial carcinomas are more virulent in the elderly, probably because of diminished immunologic defense against cancer at that age. (Hoffman et al 1995).

For many years it was believed that prolonged insertion of IUD could induce endometrial cancer. But recent literature shows that there is no such risk. Infact it is believed to be protective or has a favourable effect on the subsequent risk of endometrial cancer. (Strugeon et al 1997, Hill et al 1997).

Among the sarcomas, carcinosarcoma is the only one, which is influenced by well recognised risk factors such as diabetes, obesity and hypertension. Leiomyosarcomas occurred at an earlier age while all mixed mullerian tumours occurred at a later age. Incidence of uterine sarcomas is high (16%) to quoted general incidence of 2–6% (Lurain 1996). Even though prior radiotherapy is said to be a predisposing factor for sarcomas, none of our patients had exposure to radiotherapy.

The aggressive types of endometrial carcinomas are not related to epidemiological risk factors and are believed to be independent of hormonal influence. These

can arise from atrophic endometrium (Lurain 1996). These two factors make screening difficult for this variety.

In our small series we did not find a significant difference in risk factors between the histological variants, except for obesity and low parity that was more with the type A, the good prognosis variety. Risk of carcinoma endometrium is said to be less if childbirth occurred after 35 years with high parity. In our study we did not find any significant difference in the different histological types as far as risk factors like late menopause and age at last childbirth were concerned. Brinton et al (1992) evaluating reproductive, menstrual and medical risk factors for endometrial cancer found a significant relation to weight, early age at menarche and diabetes. They also noticed hirsutism developing at older ages to be significantly related to endometrial cancer. According to Parazzini et al (1991) pregnancy offers a short-term protective effect against endometrial cancer. Therefore reproductive factors may play a role in young premenopausal women developing cancer and this effect is expected to flatten off in older women.

Mellissa and Karch (1994) noted that the type A, estrogen dependent, good prognosis variety is more common in the perimenopausal western white women while the estrogen independent type B, which is more aggressive is present disproportionately in the Black and Asian women who are generally believed to be low risk groups for endometrial cancers.

Uterine papillary serous carcinoma is an aggressive variant and was found in advanced stage at initial presentation. This is because it has a predilection for peritoneal spread. Hence omentectomy is advisable for this type. Despite combined therapy in the two cases of primary squamous cell cancer for stage Ia, recurrence occurred within one year, which only proves the virulence of this rare cancer.

It is believed that when hyperplasia is found in the biopsy, curettage or hysterectomy specimen the accompanying carcinoma is of a much more favourable type and extent and survival rates are significantly better. (Beckner et al 1985).

Incidence of Uterine malignancies is expected to rise even in the developing countries, with increasing life span, low parity, changing life style and small family norm. Incidence of carcinoma cervix on the otherhand is expected to decrease with better screening and, living standards. With a rising life span, health care professionals must be aware that the incidence of virulent endometrial cancers and mixed mullerian tumours will also increase. Screening of the general

population is not cost-effective for this condition in India. Moreover the disease occurring in women at risk is of good prognosis. Complete evaluation of postmenopausal bleeding in the elderly women is the only possible means of early diagnosis available at present.

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