

Clinical Experience with Uterine Sarcoma

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Summary

Sarcoma of uterus is relatively rare neoplasm. We reviewed all cases of uterine malignancy treated between the year 1991 and 1997 in our hospital. A total of 57 cases of uterine malignancy were reported during this period in our hospital. Out of these 57 cases, nine cases were of uterine sarcoma. The clinical stage, treatment and outcome were retrospectively analysed. Uterine sarcoma comprised 15% of uterine corpus malignancy in our hospital. Seven cases were in Stage I and two cases were in Stage II at the time of diagnosis and treatment. Histopathologically five cases were of leiomyosarcoma, three cases were of stromal sarcoma and one case was of carcinosarcoma. Recurrence rate was 44.4%, survival rate after 5 years was 55%.

Introduction

Sarcoma of uterus is a relatively rare tumour of mesodermal origin. Uterine sarcoma accounts for only 1-3% of all female genital tract malignancy (Salazar and Dunne, 1980). They form about 2-6% of the uterine malignancy (Harlow et al., 1986). The three most common histological variants of uterine sarcoma are endometrial stromal sarcoma, leiomyosarcoma and mixed Mullerian tumour. The tumour arises most frequently between the ages of 40 and 50. The incidence of premenopausal and postmenopausal sarcoma is almost equally divided. Unlike endometrial carcinoma, etiology is unrelated to parity and associated diseases. History of prior pelvic radiation therapy may be there in cases of leiomyosarcoma and mixed Mullerian tumor. We reviewed nine cases of uterine sarcomas which were treated in our hospital from the year 1991 to 1997.

Material and Methods

We reviewed all the cases of uterine corpus malignancy treated in JIPMER hospital from the year 1991 to 1997. The clinical stage, treatment and outcome were retrospectively analysed. There were 57 cases of uterine malignancy treated during this period. Out of this, nine cases were of uterine sarcoma. Histopathologic report was available in all cases. Staging was based on International Federation of Gynaecology and Obstetrics (FIGO).

Results

The age of the patients ranged from 19 years to 60 years with a mean of 42.11 years. Three cases were menopausal. Only two cases were nulliparous. None of the cases were diabetic.

The symptoms and preoperative diagnosis are summarized in Table I. The common presenting symptoms were abnormal uterine bleeding (66.66%) followed by abdominal pain (33%). Other symptoms included mass in abdomen (22%), dysmenorrhoea (22%), postmenopausal bleeding (22%) and mass descending per vaginum (11%). The most common preoperative diagnosis was fibromyoma uterus (55.55%). Fractional curettage was done in seven cases. Out of nine cases, seven cases were classified as Stage I and two cases were classified as Stage II.

The treatment and outcome of all the nine patients are summarized in Table II. All the patients were subjected to surgery, i.e. total abdominal hysterectomy with bilateral salpingo-oophorectomy, except in one case of mass descending per vaginum in

which vaginal hysterectomy with bilateral salpingo-oophorectomy was done. Three patients received adjuvant treatment in the form of chemotherapy and radiotherapy, one patient received preoperative chemotherapy. Two patients received postoperative radiotherapy. Histopathologically five cases were of leiomyosarcoma (55.55%) followed by three of stromal sarcoma (33.33%) and one of carcinosarcoma (11%). In our series, the frequency of leiomyosarcoma among corpus cancer was 8.7% and frequency of stromal sarcoma among corpus cancer was 5.2%. The duration of follow up varied from 10 months to 62 months. The mean duration of follow up was 27.4 months. Recurrence rate was 44.4%. Recurrence was noted in vagina and pelvis. The estimated five years survival rate was 55.55%. Four patients died within 7 to 18 months after diagnosis.

Table I
Symptoms and preoperative diagnosis of nine patients with uterine sarcoma.

	No. of patients	%
Symptoms		
Abnormal uterine bleeding	6	66.66
Abdominal pain	3	33
Postmenopausal bleeding	2	22
Mass abdomen	2	22
Dysmenorrhoea	2	22
Mass descending per vaginum	1	11
Foul smelling discharge	1	11
Preoperative Diagnosis		
Fibromyoma uterus	5	55.55
Uterine malignancy	3	33.33
Uterovaginal prolaps with inversion uterus	1	11

Table II
Treatment and outcome of patients.

Case No.	Age (years)	Histopathology	Type of Operation	Adjuvant Therapy	Outcome (months)
1.	19	Leiomyosarcoma	TAH with BSO	CT & RT	DOD: 10
2.	25	Stromal sarcoma	TAH with BSO	-	NED: 62
3.	37	Carcinosarcoma	TAH	RT	DOD: 7
4.	38	Leiomyosarcoma	TAH with BSO	-	NED: 28
5.	45	Stromal sarcoma	TAH with BSO	-	NED: 49
6.	48	Leiomyosarcoma	TAH with BSO	-	NED: 36
7.	50	Leiomyosarcoma	TAH with BSO	RT	DOD: 18
8.	57	Leiomyosarcoma	TAH with BSO	-	DOD: 13
9.	60	Stromal sarcoma	VA with BSO	-	NED: 24

TAH – Total abdominal hysterectomy
BSO – Bilateral salpingo-oophorectomy
VA – Vaginal hysterectomy
DOD – Died of disease
NED – No evidence of disease

Discussion

In our study, the frequency of uterine sarcoma was 15% which is higher than in other studies in which it constitutes 2-6% (Harlow et al, 1986; Cavanagh et al, 1979). It was because of low incidence of endometrial carcinoma in our population as compared with western countries. In the nine cases of uterine sarcoma, five were of leiomyosarcoma (55.5%), three of stromal sarcoma (33.3%) and one of carcinosarcoma (11%). This is comparable with other studies in which leiomyosarcoma constitute 25 to 45% of uterine sarcoma (Barter et al, 1985; Berchuck et al, 1988). In a study by Huang et al (1996) frequency of stromal sarcoma was 46.4%. The most common presenting symptoms are abnormal uterine bleeding. Fractional curettage or biopsy could diagnose only three cases of uterine sarcoma. It may be because the number of premenopausal patients in our series was more (66%) and misdiagnosed as fibromyoma uterus (55.5%) according to the clinical presentation of menorrhagia and uterine enlargement. The recurrence rate of uterine sarcoma is about 50% in various studies (Spanas et al, 1986; Vongtama et al, 1976). In our study, the recurrence rate was 44% and postoperative adjuvant therapy did not reduce the rate of recurrence. The overall survival for women with uterine sarcoma is approximately 30%, the majority of deaths occurring in the first 3 years (Olah et al and 1992). Though, five year survival rate varies from 20 to 60%. In our study, the five year survival rate was 55.5%. Most of our cases were in Stage I and only two cases were in Stage II.

In some studies (Berchuck et al, 1990) radiotherapy was found to decrease the likelihood of local recurrence for patients with completely resected stromal sarcoma. The therapeutic effect of chemotherapy has been studied in some series and no potentially useful regimen was identified except Adriamycin (Lehner et al, 1979).

In conclusion, abnormal uterine bleeding with abdominal pain is the most prevalent symptom of uterine sarcoma. If a patient presents with abnormal uterine bleeding accompanied by abdominal pain, a diagnostic curettage is necessary to rule out uterine sarcoma. The possibility of leiomyosarcoma must always be considered in women with fibroids, especially if there are features in the history that would suggest this diagnosis (rapid growth or pain). Treatment in all cases should be total abdominal hysterectomy if possible and at the time of surgery a thorough inspection of the peritoneal cavity to assess disease spread must be undertaken. Bilateral salpingo-oophorectomy should also be performed in all patients except premenopausal women with leiomyosarcoma. The role of adjuvant

radiotherapy and chemotherapy is unclear. From the literature it would appear that radiotherapy has a role in the treatment of mixed Mullerian tumour and endometrial stromal sarcomas confined to pelvis. However, early lymphatic and haematogenous spread that is seen in cases of uterine sarcoma and tendency for recurrent disease at distant sites render pelvic irradiation of little value in most cases. Chemotherapy would be the only hope of affecting these metastasised tumour cells although the toxicity of the regimes mitigates against their use in all cases. In addition, the result of various studies are inconclusive.

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