Original Article

UTERINE SARCOMA INCIDENTAL IN INFERTILE WOMEN: EXPERIENCE IN A TROPICAL HOSPITAL

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ABSTRACT

Objective: Uterine sarcoma is an uncommon gynaecological malignancy. Diagnosis in its early stage and management is challenging especially in a resource poor setting. The objective of the study is to evaluate the clinico-pathologic presentation of uterine sarcoma in 9 subfertile patients that underwent surgery for seemingly benign uterine diseases.

Methodology: Nine consecutive infertile women with intra-operative diagnosis of uterine sarcoma were reviewed over a period of 5½ years.

Results: The nine patients were pre-operatively misdiagnosed with uterine fibroid in 7 (77.8%) patients and adenomyosis uteri in 2 (22.2%) patients. The patients mean age was 39.2 years with a range of 36 to 47 years. Parity ranged from para 0 to para 3. Of the nine patients, 7 (77.8%) presented with secondary infertility and two (22.2%) patients with primary infertility. Clinical presentations were mainly abdomino – pelvic mass (100%), pelvic pain (77.8%) and abnormal uterine bleeding in (77.8%) of patients. Three (33.3%) of the 9 patients had history of myomectomy. Pre-operative hysterosalpingogram revealed that six (66.7%) patients had bilateral tubal blockage, two (22.2%) patients had unilateral tubal blockage and one (11.1%) patient had bilateral patent fallopian tubes. Six (66.7%) patients had hydrosalpinges. Clinical staging of malignancy was stage Ic in seven patients, stage IIa and IIb in the remaining two patients. Histologic classifications were leiomyosarcoma in six patients and endometrial stromal sarcoma in three patients. Treatments offered were surgery alone in six (66.7%) patients, surgery with adjuvant chemotherapy for 2 (22.2%) patients and one (11.1%) patient had surgery with adjuvant radiotherapy. Case fatality was 77.8% with a year of diagnosis.

Conclusion: In a resource constrained setting, due to limitations in making diagnosis in the early stage of the disease, a high index of suspicion is needed in all elderly infertile women presenting with seemingly benign abdomino pelvic mass.

KEYWORDS: Uterine sarcoma, Female infertility, Diagnosis.

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INTRODUCTION

Sacroma of the uterine body is an uncommon but highly malignant gynaecological neoplasi with poor prognosis. It accounts for 3 to 5 percent of all uterine cancers.[1] It is commoner in black women[2] and women that have undergone radiation treatment.[2,3] Primarily, sarcoma of the corpus uteri either arises from endometrial gland and stroma or the uterine muscles. Uterine sarcoma may either be pure if it is composed of one cell type or mixed.

Uterine sarcoma tend to affect relatively younger age group when compared to its counterpart; carcinoma of the uterus.[4,5]

Furthermore, clinical diagnosis of uterine sarcoma have been reported to be often overlooked.[6] Against this background, we studied cases of uterine sarcoma incidentally detected in infertile women attending our infertility clinic.

PATIENTS AND METHODS

This is a prospective study of nine consecutive cases of uterine sarcoma detected among patients attending the infertility clinic in a community teaching hospital. These patients were evaluated for sub fertility between January 1999 and June 2005 and they subsequently had laparotomy for pelvic mass thought to be benign. The diagnosis of uterine sarcoma was made at surgery and this was confirmed by histopathologic examination.

RESULTS

All the patients were above 35 years. The mean age was 39.2 years with a range of 36 to 47 years. Of the 9 patients, 6 (66.7%) were in the age group of 35 to 40 years. Five (55.6%) out of the 9 patients had never delivered before, though 7 (77.8%) patients presented with secondary infertility and the remaining two (22.2%) patients with primary infertility. Preoperative diagnosis was uterine fibroid in seven (77.8%) patients and adenomyosis uteri in two (22.2%) patients.

Clinical presentation were abdominopelvic mass 100% pelvic pain 77.8% and abnormal uterine bleeding in 77.8 (7 patients) percent of cases. Bilateral tubal blockage was the commonest tubal pathology on preoperative hysterosalpingogram in six (66.7%) patients; this was followed by unilateral tubal blockage in two (22.2%) patients. Only one (11.1%) out of the 9 patients had evidence of bilateral tubal patency.

Staging of the tumour showed that 77.8 (7 patients) percent of patients had stage I disease and the remaining two (22.2%) patients had stage II disease. Leiomyosacroma was the commonest histological type occurring in 66.7 (6 patients) percent of cases, followed by endometrial stromal sarcoma in three (33.3%) patients.

Table-I: Profile of patients

Variables	*N = 9*	*Percentage*
Age		
35 – 40	6	66.7
41 – 45	2	22.2
46 - 50	1	11.1
Parity		
0	5	55.6
1	2	22.2
2	1	11.1
3	1	11.1
Preoperatve Diagnosis		
Uterine fibroid	7	77.8
Adenomyosis uteri	2	22.2
Type of infertility		
Primary	2	22.2
Secondary	7	77.8

Treatments offered to the patients were surgery alone in 6 (66.7%) patients, surgery and adjuvant chemotherapy in two (22.2%) patients and surgery and adjuvant radiotherapy in one (11.1%) patient. Case fatality was 77.8% (7 patients) within a year of diagnosis and treatment.

DISCUSSION

The rarity of uterine sarcoma may be responsible for the paucity of literature emanating from the developing world. The latter may be partly responsible for the low index of suspicion on the part of the physician working in this part of the world.

Sacroma of the uterine body are known to progress rapidly and affect relatively younger women compared to endometrial carcinoma.[4] This may be explained by absence of premalignant diseases stage in the evolution of sarcomas. The diagnosis of sarcoma in this group of premenopausal women seeking treatment for subfertility was however not surprising. The pertinent but worrisome aspect was the incidental detection of this aggressive tumour at surgery for the pelvic mass and infertility. It has been reported that uterine sarcoma may

Table-II: Clinical presentation and staging, histological type and treatment offered

Variables	*N = 9*	*Percentage*
Clinical Presentation		
Abdominopelvic mass	9	100
Pelvic pain	7	77.8
Abnormal uterine bleeding	7	77.8
Hysterosalpingogram finding		
Bilateral tubal blockage	6	66.7
Unilateral tubal blockage	2	22.2
Bilateral tubal patency	1	11.1
Clinical Staging		
Stage Ic	7	77.8
Stage IIb	1	11.1
Stage IIIb	1	11.1
Histological type		
Leiomyosarcoma	6	66.7
Endometrial stromal sarcoma	3	33.3
Treatment		
Surgery alone	6	66.7
Surgery plus chemotherapy	2	22.2
Surgery plus radiotherapy	1	11.1

masquerade as any condition causing uterine enlargement or pelvic mass.[6] Accordingly, the nine cases in our series were either misdiagnosed as uterine fibroid or adenomyosis. It is noteworthy, that uterine fibroid may mask the diagnosis of more serious gynaecological neoplasia,[7] as was the case in this study. Authors1 have reported erroneous preoperative diagnosis of uterine leiomyoma based on clinical presentation of pelvic mass, pelvic pain and abnormal uterine bleeding in premenopausal women. Preoperative cytologic studies, endometrial biopsy or fractional dilatation and curettage have been associated with poor detection rate of uterine sarcoma.[6] Most cases are diagnosed at exploratory surgery for probable uterine leiomyoma.[7] Intraoperatively, our clinical impression was the bizarre and grotesque appearance of this highly vascularized, non capsulated irregular growths on the uterus, which was confirmed on histopathologic examination. Diagnostic accuracy of uterine sarcoma can only be increased if gynaecologists have these tumours in mind while evaluating any pelvic mass.[6] A frozen section must be done while operating to be able to perform correct surgical procedure which may be more extensive than planned.

In our series, there was no history of previous exposure to pelvic irradiation, in contrast to the findings of Meredith,[3] who recorded high percentage of previous irradiation in his series. The aggressiveness of uterine sarcoma was found to be more in women previously irradiated for pelvic malignancy than those irradiated for benign conditions.[3]

Leiomyosacroma (LMS) was the commonest histologic type of sarcoma encountered in this study. This is in accordance with report from similar study in Nigeria.4 Whereas, data from gynaecologic oncologic group, revealed mixed mullerian sarcoma as the commonest, representing two third of all sarcoma.[1] The preponderance of leiomyoma among the black race may explain the discrepancy in these findings. Although, LMS may arise from normal myometrium or from fibroid, however only five to ten percent of LMS arises from the latter and they are associated with a relatively better prognosis.[8] When compared to other histologic types, the preoperative diagnosis of LMS is more difficult1 because it may coexist with benign

leiomyoma. Furthermore, diagnostic biopsy is difficult and not easily accomplished in cases of LMS. Most of the patients in our study had stage one disease. This staging may however be fraught with errors, since the presence / extent of lymph node involvement and vascular invasion was not adequately ascertained because ours is a resource poor setting.

The hallmark of treatment is surgery; this include total abdominal hysterectomy (TAH), bilateral salpingo-oophorectomy (BSO), pelvic and periaortic selective lymphadenectomy.[1,6-8] All our patients but three had TAH and BSO only. There is no consensus as to the value of adjuvant chemotherapy and irradiation in the treatment of uterine sarcoma. However, variable rate of success have been recorded with the use of single and combination chemotherapy in recurrent cases.[9-11]

In our study, we recorded low survival rate; 77.8% of our cases died of the disease within the first year of diagnosis and treatment. Better survival rate was reported by other authors[1,12] most likely due to precision in staging and adequate surgery. LMS which was the commonest histologic type in our study has been associated with some favourable prognostic factors.[13] They are premenopausal status, confinement of tumour within a myoma, low mitotic count fewer than four per high power field. Others are absence of hyalinization in adjacent tissue signifying confinement.

CONCLUSIONS

In conclusion, though uterine sarcoma is a rare tumour, conscious effort should be made to rule out this fatal neoplasia in the preoperative evaluation of pelvic mass especially in elderly infertile women.

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