

SARCOMA OF UTERUS

by

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Introduction

Sarcoma is a relatively rare condition. Novak and Anderson (1937) reported incidence of 3.1% of all uterine malignancy. Sarcoma of uterus may originate primarily as endometrial or mural, or may arise in normal muscle or in antecedent leiomyoma. Ober (1959) found that the subcoelomic mesenchyma at the sites of all fused portion of the mullerian apparatus to be the most vulnerable tissue to undergo sarcomatous change presumably due to fusion and intercalation of two different tissues. The leiomyosarcoma comprises 50 to 70% of uterine sarcomas. We are presenting 7 cases of sarcoma of uterus. The purpose of reviewing cases recorded from year 1957 to 1982 is to evaluate the clinical behaviour in relationship to pathological features.

Results

We had 2 cases of leiomyosarcoma of uterus in 1981 and 82 and retrospective study of 5 cases records from 1957 to 1971 is also included in the study. All case records were reviewed clinicopathologically. The short clinical case reports are shown in Table I.

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All the patients were multiparas of 25 to 67 year of age. The main presenting symptoms were irregular vaginal bleeding, pain and lump in abdomen of short duration. Other symptoms were fever, foul smelling vaginal discharge. All of them were anaemic (Hb was 4 to 6 gm%) had 2 to 4 units of blood transfusions. X-ray chest was N.A.D. in all cases. Five cases had total abdominal hysterectomy with adnexectomy irrespective of their age. One refused operation, had external radiation, only. One was inoperable, diagnosed at laparotomy. Only 4 cases had post-operative radiation. There was poor follow-up records. Out of 7 cases, 4 were followed up to one year after treatment. Last one died after 6 months of diagnosis.

All the cut sections were examined and reviewed, in relation to the clinical behaviour.

Comments

In present series, 7 cases of sarcoma of uterus were reviewed clinicopathologically. We had 6 cases of leiomyosarcoma (85.50%) and 1 case of endometrial stromal cell sarcoma which is rare. Sarcoma may arise at any age group but greatest incidence being in fifth decade of life. Incidence of sarcoma was 4.6% of

TABLE I

Case No.	Year	Age	Parity	Presenting symptoms with duration	Menstrual cycle	Clinical diagnosis
1	2	3	4	5	6	7
1	1957	50 Yrs.	5th para	Lump, pain abdomen and irregular vaginal bleeding—3 months	Regular	Fibroid uterus
2	1959	29 Yrs.	4th para	Lump, pain irregular vaginal bleeding—2 months	M.C.—4 yr. 10/30 days, moderate painless	-do-
3	1963	40 Yrs.	5th para	Lump, pain and 2 months excessive bleeding during periods—4 years	4 yr. MC 6-8/30 days	Fibroid uterus with broad ligament cyst
4	1964	25 Yrs.	4th	Lump and continuous vaginal bleeding—2 months	Normal	Fibroid uterus with ovarian cyst
5	1971	64 Yrs.	8th para	Fever and vaginal bleeding with foul smelling discharge—3 months.	Menopause 10 years back	Cancer cervix II
6	1981	67 Yrs.	-do-	Pain, lump and vaginal bleeding with foul smelling discharge—4 months	Menopause 15 years back	Sarcoma uterus
7	1982	52 Yrs.	-do-	Pain, lump and 1-2 months menorrhagia	Menstruating menorrhagia	

T.A.H. with B.S.O. = Total abdominal hysterectomy with bilateral salpingo-oophrectomy.

TABLE I (Contd.)

D & C report	Treatment	Gross	H.P.R.	Post-Op. radiation	Follow up
8	9	10	11	12	13
Not done	T.A.H. with B.S.O.	Enlarged uterus of 18 week size with degenerated sub-mucous leiomyoma. Ovaries tubes—NAD	anaplastic leiomyosarcoma uterus 232/57	No	No
Not suggestive of malignancy	-do-	Enlarged uterus of 20 week size with degenerated sub-mucous fibroid. Doubt of malignancy	401/59 Leiomyosarcoma uterus	No	No
-do-	-do-	Enlarged uterus of 18 week size due to multiple nodules, areas of haemorrhage and necrosis seen	2650/64 Leiomyosarcoma uterus	Yes	6 months Alive & healthy
Not suggestive of malignancy	T.A.H. with B.S.O.	Enlarged uterus of 16-18 week with degenerated sub-mucous fibroid uterus ovaries 6" x 6" diameter	3071/64 Leiomyosarcoma uterus	Yes	1 year alive
Biopsy taken from growth	Refused	2" growth projecting in the cervical canal which was normal	532/64 Endometrial stromal sarcoma	Radiation given	No absconded
Not suggestive	T.A.H. B.S.O.	Soft pale uterus with area of necrosis and haemorrhage on myometrium of 24 week filled with soft necrotic haemolytic tissue. Doubt of sarcoma	428/81 Leiomyosarcoma uterus	Yes	Alive & healthy uptodate
Not done	Laparotomy. In operation biopsy from uterus taken	Uterus was enlarged to 28 week soft haemorrhagic area seen. Pelvis infiltrated with growth	4987/82 Clear cell carcinoma	Yes	developed as citis died after 6 months

all uterine malignancy in present series. Mean age for sarcoma uterus was 46.80 years while for leiomyosarcoma 43.8 years. Mean age for leiomyosarcoma reported by others (Charache, 1960; Bartsich *et al*, 1967) are 50.9 to 56.2 years. 28.8% of women attained menopause but menopause was delayed (after 50 years), which is in agreement with observations of others (Giri, 1968). All women were multiparae, while Vaide and Tovell (1980) had 37.5% of nuliparae in their series.

Leiomyosarcoma, the commonest variety, comprises 50 to 70% of all uterine sarcoma was present in 85.52% of cases in present series. Malignant changes in fibroid uterus varied from 0.29 to 0.52% (Ober, 1959; Mantogue *et al*, 1961) which is in consonance with present findings.

The symptoms of patients were closely resembled those found with leiomyoma uterus. The naked eye appearance clinically does not differentiate the sarcoma of uterus from benign degenerated fibroid uterus but with a short history of rapidly growing tumours with pain and vaginal bleeding in post-menopausal women strong suspicion must be made.

Histologically distribution between the benign and highly cellular degenerated leiomyoma and leiomyosarcoma is frequently difficult. Christopherson *et al* (1972) observed that some extremely cellular and histological bizarre tumour have a benign non-aggressive course.

Diagnostic criterion was made in giant cell, atypia, presence of more than 10 mitotic figures per high power field and relation to blood vessels.

The treatment of choice was total abdo-

minal hysterectomy with bilateral adnexectomy done in five cases which is the standard treatment. One case was inoperable, only biopsy was taken. Four cases had post-operative radiation. Stearns and Sneed (1966) observed that conservation of one or both ovaries in localized leiomyosarcoma does not affect the survival rate.

It is impossible to obtain any statistical data regarding the prognosis of sarcoma uterus based on any set routine treatment. Aaro, Symmond and Dockerty (1966) observed 41% five years survival in leiomyosarcoma with surgery as primary treatment, 53% for patient under the age of 53 years, while little success in older age group. In present study because of poor follow-up prognostic evaluation cannot be given.

References

1. Aaro, L. A., Symmond, S. R. E. and Dockerty, M. B.: *Am. J. Obstet. Gynec.* 94: 101, 1966.
2. Bartsich, E. G., O'Leary, J. A., Moore, J. G.: *Obstet. Gynec.* 30: 518, 1967.
3. Charache, H.: *Am. J. Surg.* 100: 522, 1960.
4. Christopherson, W. H., Williamson, E. O., Gray, C. A.: *Cancer.* 29: 1512, 1972.
5. Giri, A. K.: *J. Obstet. Gynec. India.* 18: 731, 1968.
6. Montague, A. C. W., Swartz, D. P., Woodruff, J. D.: *Am. J. Obstet. Gynec.* 15: 429, 1965.
7. Ober, W. B.: *Ann. Ny. Acad. Sci.* 75: 568, 1959.
8. Novak, E. and Anderson, D. F.: *Am. J. Obstet. Gynec.* 34: 340, 1937.
9. Stearns, H. C. Sneed, V. D.: *Am. J. Obstet. Gynec.* 95: 374, 1966.
10. Vardi, J. R. and Tovell, H. M. M.: *Obstet. Gynec.* 56: 428, 1980.