SARCOMA OF UTERUS (A REPORT OF 10 CASES WITH REVIEW OF LITERATURE)

by

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Sarcomas of uterus are far less common than carcinomas representing not more than 1% of malignant growths of the female genitalia (Jeffcoate, 1975). Incidence amongst uterine malignancies varies from 1.8% (Webb, 1955) to 5.5% (Fenton and Burke, 1952). Uterine sarcoma constitutes less than 5% of all uterine malignant tumours (Novak, 1975). Although uncommon, yet it is rather a serious lesion because of its tendency to spread via blood stream, leading to lung and liver metastases. Local invasion to parametrium and pelvic organs is also common.

Uterine sarcomas may arise from any of the connective tissue elements of the uterine structure viz., myometrium, endometrium, blood vessels, cervix, from muscle and fibrous tissues.

In view of the rarity, with which the uterine sarcomas are encountered in gynaecological practice, and with their serious outcome, a review of 10 cases of uterine sarcomas is reported.

Material and Methods

These 10 cases were registered in the department of Pathology and Microbiology, Dr. Sampurnanand Medical College, Jodhpur from the period January, 1968 to October 1979, among 1130 hysterectomies performed for various diseases.

The relevant clinicopathological features including, age, symptoms, origin of tumour, gross and microscopic findings and treatment are listed in Table I.

The age in our series ranged from 35 to 65 years. Out of the 10 cases under review, 1 was seen in relation to cervix (case 10) and another was a case of endometrial stromal sarcoma (case 9). Three cases were seen in relation to pre-existing leiomyoma. The tumours in most instances were either confined to myoma, endometrium or in myometrium. Only in 1 instance tumour showed extension beyond primary site (case 10), which was a sarcoma involving cervix.

Chief presenting symptoms in most cases were excessive vaginal bleeding, lower abdominal pain and palpable mass in the abdomen. The most favoured treatment in all 10 cases was hysterectomy

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TABLE I
Salient Features of 10 Cases of Leiomyosarcoma

Case No.	Age	Presenting symptoms	Provisional clinical diagnosis	Gross extent of lesion	Origin of tumour
1.	35 Years	Bleeding per vagina and pain abdomen	Fibroid uterus	Confined to leiomyoma	Leiomyoma
2.	45 Years	Excessive bleeding per vagina and lump abdomen	Not available	Tumour in myometrium extending to endometrium	Probably in myometrium
3.	65 Years	Excessive bleeding per vagina, fever and lump abdomen	Functional uterine bleeding with fibroid uterus	Confined to leiomyoma	Leiomyoma
4.	40 Years	Something coming out of vagina and prolapse	Genital prolapse	No leiomyoma confined to endometrium and myometrium	Probably in myometrium
5.	52 Years	Lump abdomen gradually increasing in size and irregular vaginal bleeding	Fibroid undergoing sarcomatous changes	Myoma	Probably in leiomyoma
6.	54 Years	Excessive vaginal bleeding and pain lower abdomen	Uterine cancer	Extend to serosa	Primary in myometrium
7.	42 Years	Menorrhagia and lump abdomen	Fibroid uterus	Confined to myometrium	Primary in myometrium
8.	47 Years	Irregular vaginal bleeding	Not available	Confined to myometrium	Probably in myometrium
9.	52 Years	Blood stained discharge, low backache and lump abdomen	Cancer body of uterus	Extended to endometrium but not to serosa	Myometrium to endometrium in origin
10.	60 Years	Excessive bleeding per vagina, backache and cervical mass protruding from vagina	Fibroid cervix ? prolapse cervix	Beyond uterus in vagina and pelvic organs	Probably in cervix

with bilateral salpingo-oophorectomy. Only 1 case received adjuvant radiation therapy. A follow up of duration of maximum 8 months was available, in 3 cases only. These 3 patients were free of tumour at other sites.

Gross appearances in most of the reported cases revealed an enlarged uterus enclosing either a myomatous mass or a large smooth yellowish soft mass with or without distinct whorled appearance. Degenerative changes in form of cystic degeneration, haemorrhages and necrosis was also seen.

Microscopic appearances generally showed picture of leiomyosarcoma ranging from proliferating neoplastic leiomyomatous arrangements to frankly malignant, mitotically active, pleomorphic giant cell associated sarcomatous lesions. The endometrial stromal sarcoma, (case 9) showed marked proliferation of stromal elements and loss of endometrial glands. Marked nuclear hyperchromaticism, mito-

tic activity and pleomorphism was seen. The histological appearances in case 10 involving cervical stroma showed similar features, the epithelium and glands retaining normal morphology. However, all cases were carefully studied in relation to myoma and sarcomatous changes if any were superimposed on myoma.

Diagnosis of sarcoma could be made pre-operatively in 2 of the 10 cases by diagnostic curettage or biopsy. In the remaining cases the provisional diagnosis was either an ovarian tumour or a fibromyoma. Vaginal cytology was not done in any case.

Total hysterectomy and bilateral salpingo-oophorectomy is the usual method of treatment. Wertheim's hysterectomy should be the surgical method when cervix is also involved. Ober (1959) suggests that in younger women in whom the growth was limited to the surgical limits of the uterus, it might not be necessary to remove the tubes and ovaries. Exentration should be attempted in sarcoma botryoides or in sarcoma with extensive local infiltration.

Amongst the sarcomas, mixed mesodermal and endometrial stromal sarcoma are more malignant than leiomyosarcoma. The prognosis is poor when the tumour spreads beyond the uterus into parametrium and other pelvic organs. Ober (1959) laid stress on the anatomical extent of the disease while discussing the prognosis. Macfarlane (1950) reported a 5 years cure rate of 29.6%, Herman and Burrow's (1955) 33%, Crawford *et al* (1959) 26.4% and Aaro and Dockerty (1959) noted a high 46% 5 year survival. The prognosis is better in younger, rather than the post menopausal patients (Novak, 1975).

Discussion

The incidence of sarcoma originating from fibromyoma is 1.5% (Giri, 1958). Sarcomatous changes in fibromyoma varies from 0.33% (Herman and Burrows, 1952) to 2.4% (Reddy and Sarojini, 1962). Three cases in the present series were seen in association with pre-existing leiomyomas. Average age incidence was 49.2 years with a range between 35 to 65 years in our series. Ober, 1959, observed average age for sarcoma to be 58.9 and Giri 1958 gave 52 years as average age. Average age varies from 50 to 58 years as reported by various authors. Average age at menopause was 47 years in the present series and 4 cases were still menstruating.

In 7 of the 10 cases, parity was known, 6 were multipara and 1 was nullipara. Fenton, 1952 reported, the average parity to be 3. The observation in this series corroborated the observation of other workers that parous women were not immune to sarcoma. Irregular vaginal bleeding, abdominal lump and pain in lower abdomen were the triad of symptoms in sarcoma.

Summary

Ten cases of uterine sarcoma have been evaluated for their clinicopathological features, their relation to leiomyoma, prognosis and treatment has been discussed. Among 10 cases, leiomyosarcoma was detected in 8, endometrial stromal sarcoma 1 and leiomyosarcoma involving cervix in 1. The tumour was seen in age range of 35 and 65 years. Triad of symptoms were abdominal lump, irregular vaginal bleeding and lower abdominal pain. Abdominal total hysterectomy and bilateral salpingo-oophorectomy usually was the mode of treatment.

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