

# LEIOMYOSARCOMA OF THE UTERUS WITH METASTASIS TO THE FEMUR

by

D. BHASKARA REDDY\*, M.D.

and

D. SARADA\*\*, M.B.B.S.

Malignant tumours arising in uterine smooth muscle are very often difficult to differentiate from leiomyomas. Sarcoma of the uterus was first described by Virchow in 1860. Since then many isolated cases and collected series have been reported. In most cases the leiomyosarcoma is rarely diagnosed preoperatively and only discovered unexpectedly as a result of removing the fibroid tumour. The reported incidence of uterine sarcomata varies from 0.2% to 10%. The diagnosis in these cases can be made definitely only by histological study of careful and close search of several sections of tumour mass. Even here there is no unanimity regarding the cellular picture of malignancy. Evans graded the sarcomas by counting the mitotic figures in one cubic millimetre of the tumour. He considered group I with 2,200 to 12,000 mitotic figures per c.m.m. to be highly malignant, group II with 200 to 800 per c.m.m. to be borderline, group III with zero to a few mitotic figures per c.m.m. to be premalignant. Davis et al graded

these neoplasms into four grades, grade I being cellular benign fibromyoma with uniform mature cells, and grade IV unequivocal picture of sarcoma. It is also the general opinion that distant metastases are rare, much more so of bone. Decio, in 1939, reported a case of uterine sarcoma with metastasis to the humerus. Robbins in 1943 reported two cases of sarcoma of the uterus with evidence of spinal metastases 3 years and 1 year after removal of primary.

In view of the sparsity of reported cases a case of leiomyosarcoma of the uterus with metastasis to the femur, which to our knowledge is the first case in India is recorded below for its rarity.

## Case Report

A Hindu female, aged 60 years, was admitted in the wards of Dr. P. Venkateswara Rao, M.S., Surgeon, Government General Hospital, Guntur, on 29-8-'62 for accidental injury to the left thigh which resulted in fracture of the left femur. Patient had been operated on in February '62 for fibroids which on histological examination showed malignant transformation. Patient was alright till the time of injury. On examination a tender swelling and deformity of the left thigh in the lower third was noticed. A firm mass was present in the right iliac fossa not moving with re-

\* Professor of Pathology,

\*\* Tutor in Pathology, Guntur Medical College, Guntur.

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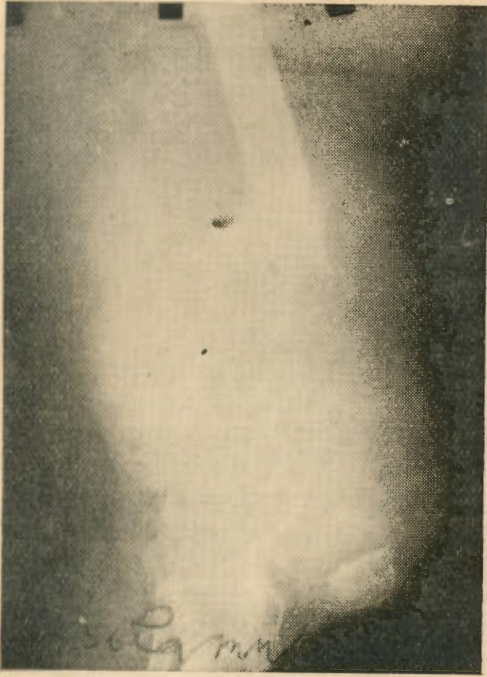


Fig. 1

X-ray showing fracture of the lower third of the shaft of the femur.



Fig. 3

Photomicrograph illustrates the clear leiomyosarcomatous picture. H. & E. x 480.

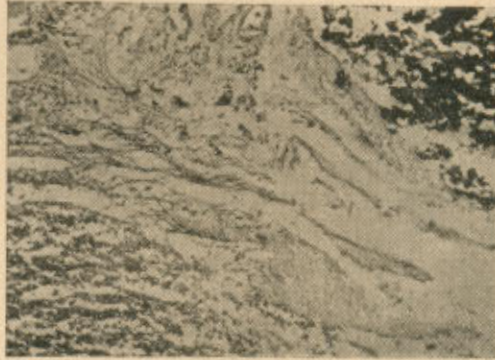


Fig. 4

Photomicrograph illustrates the tumour cells infiltrating the bone. H. & E. x 80.

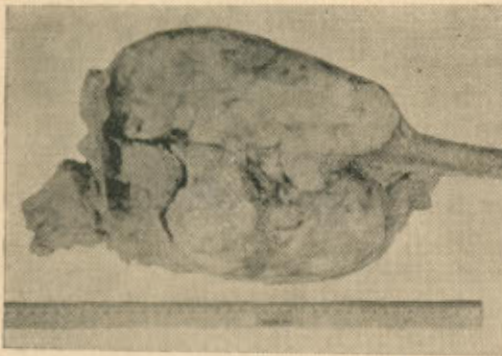


Fig. 2

Photograph illustrates the bone with deposit. Cut-section of the tumour shows areas of necrosis and haemorrhage.

spirations and there was no mobility in either direction. Liver and spleen were not palpable. Vaginal examination revealed a palpable mass which moved with the

mass in the right iliac fossa on bimanual examination.

**Investigations:** X-ray of the left femur revealed fracture of the lower third. X-ray chest showed no evidence of secondaries.

**Clinical Diagnosis:** Pathological fracture of the shaft of the left femur. Patient expired on 19-10-'62.

**Chief Autopsy Findings:** P.M. No. 57/62 Autopsy was done on 22-10-'62.

1. A diffuse soft swelling was seen extending from the lower third of the left thigh to just below the knee joint. There was shortening of the left leg by 3".

2. A globular mass 8" x 9" in the right iliac fossa was seen. Peritoneum was thickened and adherent to the mass. The



tumour was infiltrating into the anterior abdominal muscles. Omentum was rolled up and adherent to the under surface of the liver. Bladder was adherent to the tumour. The mass was infiltrating into the vagina. Tumour weighed 1700 gms. Cut section showed areas of necrosis and haemorrhage.

3. Examination of the left femur showed a tumour 10" x 8" in the middle of the shaft with areas of necrosis and haemorrhage and fracture of the shaft at the lower third was seen.

4. Stomach showed subserosal nodule 1 cm. in diameter.

5. All other organs-nil abnormal.

**Histological Examination:** Sections studied from the pelvic mass, tumour deposit in the bone and subserosal nodule in the stomach showed spindle-celled leiomyosarcoma.

**Morbid Anatomical Diagnosis:** Leiomyosarcoma with metastases to the pelvis, stomach and femur.

### Discussion

Sarcoma of the uterus is a rare neoplasm probably occurring in not more than 1% of the patients who were operated for uterine fibromyoma. During the period 1955-62, 506 fibromyomas were encountered in the department of Pathology in Guntur Medical College, and 11 of these showed sarcomatous transformation, giving an incidence of 2%. Metastases from these sarcomas usually occur in the lungs, peritoneum lymph nodes, liver and kidneys. Very little is known concerning the uterine sarcomas metastasizing to bone, as there are only few recorded cases in the world literature. The only other case was Brooke and Thompson's who recorded a similar case of sarcoma with metastasis to the left femur.

### Summary

Sarcoma of the uterus is relatively an uncommon disease. A rare case of leiomyosarcoma of the uterus with metastasis to the left femur is recorded.

### Acknowledgements

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