LEIOMYOSARCOMA OF THE BROAD LIGAMENT

by

P. MEHRA,* M.D.
A. N. GUPTA,** M.D., D.G.O.
S. K. GUPTA,*** M.D.

Broad ligament tumours form a minor group amongst the growths involving the genital tract and allied structures. The most common neoplasm at this site is a myoma, arising de novo. Malignant growths here are usually secondaries from malignancy involving the pelvic organs. The rarity of leiomyosarcoma of the broad ligament can be adjudged from the fact that Novak and Woodruff (1967) in their text-book on Gynaecological Pathology give a passing reference only. Various large series of sarcoma of the uterus also do not report any case of sarcoma of the broad ligament. An occasional report of this malignancy is seen in the literature as that by Lowell and Karsch (1968). Therefore, this diagnosis is not made clinically and is purely a histopathological one. However, in view of the symptoms and signs detailed below, which are also in consistency with those reported by Lowell and Karsch (1968), this diagnosis can be kept in mind as a rare possibility. The interest in this case lies in the rarity of this condition.

*Registrar.

**Associate Professor, Dept. of Obst. & Gynec.

***Lecturer, Dept. of Pathology, Institute of Postgraduate Medical Education and Research, Chandigarh.

Received for publication on 7-12-1969.

Case Report

T. D., 45 years old female, para 9, was admitted on 25-10-68 with the complaint of a painful mass in the left iliac fossa, dating back to her last delivery seven years back. There was no increase in the size of the lump during this time. She had constant dull pain in this region, with an occasional attack of severe pain which remained localized and was not accompanied by any vomiting, urinary or bowel disturbance. There was a history of low grade fever off and on, but the appetite remained normal and there was no loss of weight. The menstrual rhythm had become altered since the last two years; the periods were excessive, irregular and painful, the cycle being 3-15/30-90, compared to the previous cycles of 4/30 with normal and painless flow.

On examination, she was anaemic; pulse rate-100/mt. and she was afebrile. Abdominal palpation revealed the presence of a firm, tender mass of the size of an orange, with restricted mobility in the left side of the lower abdomen. No free fluid could be detected.

Per vaginam, the uterus was normal in size, retroverted, with restricted mobility; the right fornix was clear and a firm, smooth tender mass, palpable per abdomen, was present in the left fornix. Speculum examination revealed a cervical erosion.

Laboratory findings on admission were: Haemoglobin 10.3 gms.; white blood count —4000/- c.mm; differential count P. 58%, L. 38%, M 2%, E 2%; E.S.R. 58 mm. Ist hour, Westergren. Cervical smear and

posterior fornix smear were negative for malignant cells. Roentegenogram of the chest, done after receiving the pathology report, showed no evidence of secondaries.

A provisional diagnosis of a left sided inflammatory tubo-ovarian mass was made and a course of streptopenicillin injections was given. The patient remained afebrile during this period, but the pain in the abdomen persisted. Re-examination a fortnight later revealed no change in the size of the mass, except that it could be more easily defined and was more mobile. The second possibility of an ovarian tumour was also there in our mind. A decision was made of performing a total abdominal hysterectomy and bilateral salpingo-oophorectomy, taking into consideration her age, menstrual disorder, persistent pain and presence of the mass.

Preoperative diagnostic currettage was omitted in this case because of the clinical suspicion of the mass being inflammatory in nature. She was operated on 25-11-68 and on opening the abdomen the uterus, both tubes and ovaries were found to be normal. The growth on the left side was found to be in the broad ligament, close to the left lateral pelvic wall, fairly mobile and measured about 3″ in diameter. It was firm in consistancy and was easily enucleated. On macroscopical examination (cut section) it appeared to be a myoma. A total hysterectomy with bilateral salpingo-oophorectomy was done.

Pathology

Macroscopic examination: Uterus, tubes and ovaries were normal. The myoma was small, well encapsulated, measuring 3 inches in diameter; cut surface showed whorled appearance.

Microscopical examination (Figs. 1 and 2) sections of the myoma showed interwoven bundles of muscle fibres with marked cellularity and plenty of atypical cells. In areas the picture was quite pleomorphic, and a bizarre nuclear pattern with giant cell formation was seen; other areas showed a typical picture of myoma. The diagnosis was consistent with that of leiomyosarcoma, grade I to II.

The postoperative period was uneventful, and the patient was discharged with advice to attend the follow-up clinic. When seen on 24-1-69 and 28-3-69, there was no evidence of recurrence any where so far. Xray chest was repeated in the follow-up clinical twice.

Comment

Leiomyosarcomas are very malignant tumours and present a major difficulty in treatment. The five year survival for uterine sarcomata has been reported by various authors as varying from 8% (Thornton and Carter, 1957) to 46% (Gudgeon, 1968). The criteria for prognosis depend on the integrity of the capsule and histological invasion of blood vessels and mitotic figures (Bartisch *et al*, 1968, and Novak and Woodruff 1967). No such reports are available for broad ligament leiomyosarcomas, but the same criteria can well be applied. Our case represented a grade I to II malignancy, with the capsule intact and presents a fair prognosis. In view of the typical myoma picture and long duration of the tumour it is probably a sarcomatous change in a pre-existing fibromyoma. This also is a favourable factor in depicting the prognosis.

Treatment by panhysterectomy with removal of the tumour was thought to be adequate. Chemotherapy is not of significant benefit in this malignancy of the uterus as reported by various workers, including recently White *et al* (1965). Leiomyosarcoma is known to be a radioresistant tumour and hence no postoperative deep x-ray therapy was given. Further follow-up is needed in this case to assess the prognosis.

Summary

A 45 years old, premenopausal patient was admitted with the complaints of a painful mass in the abdo-

men for the last seven years, which was diagnosed as a chronic inflammatory tubo-ovarian mass, but at laparotomy turned out to be a broad ligament myoma. Panhysterectomy with removal of the tumour was done.

The histopathological diagnosis was leiomyosarcoma in a pre-existing broad ligament myoma.

References

1. Bartsich, E. G., Bowe, E. T. and Moore, J. C.: Obst. & Gynec., 32: 101, 1968.
2. Gudgeon, D. H.: Obst. & Gynec., 32: 96, 1968.
3. Lowell, D. M. and Karsch, J.: J. Obst. & Gynec., 32: 107, 1968.
4. Novak, E. R. and Woodruff, J. D.: Gynaecologic and Obstetric Pathology, ed. 6, Philadelphia, 1967, Saunders.
5. Thornton, W. M. and Carter, J. P.: Am. J. Obst. & Gynec., 62: 294, 1957.
6. White, T. H., Glover, J. S., Peete, C. M. and Parker, R. T.: Obst. & Gynec., 25: 657, 1965.

See Figs. on Art Paper VIII

ERRATA

No. 3, Vol. XX, June 1970,

For 76.7% in colomn 1, line 6 from the bottom on page 452, read "6.7%"