

MYXOMA OF THE BROAD LIGAMENT

(A Case Report)

by

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The solid tumours of the broad ligament are a rarity, the most common of these being a fibroma. The other solid tumours are lipoma, haemangioma, adenomyoma, sarcoma, dermoid and carcinoma. Only a passing remark has been made about the myxoma of the broad ligament. Gardner *et al* (1957) have presented a series of 27 solid tumours of the broad ligament with not a single case of myxoma. According to them the definition of a broad ligament tumour on the basis of its location is 'the tumour which occurs in or on the broad ligament but is completely separate from and is no way in connection with either the uterus or the ovary'.

Case Report

Mrs. S. L., aged 60 years, widow, was admitted on 6th March, 1969, to King Edward VII Memorial Hospital, Bombay, with a history of swelling in the lower abdomen of 6 months' duration and oedema of feet for one month. The patient sought admission mainly for retention of urine for one day.

There was no history of vomiting, bleeding per vaginam or acute pain in the ab-

domen. There was no history of retention of urine in the past. She did give a history of loss of weight and appetite.

Her menstrual history revealed that she was menopausal for 20 years. Her past menstrual history was within normal limits.

She had two full-term normal deliveries, the last confinement being 25 years ago.

On examination, she appeared to be rather pale. She had marked oedema of the right lower limb which was covered all over by eczema. The vital signs were within normal limits and systemic examination did not show any abnormality.

Abdominal examination revealed a lump in the lower abdomen, occupying the hypogastrium, both iliac fossae and the umbilical region, arising from the pelvis. It was well-defined, about 8" x 10" in diameter, fixed and variegated in consistency. The skin over it was oedematous.

On vaginal examination, the cervix appeared to be out of reach. The mass which was palpable per abdomen could be palpated through all the fornices. The uterus could not be felt separately.

The following investigations were carried out: haemoglobin—10 gms. per cent; urine—8-10 pus cells/H.P.F., and 8-10 R.B.Cs./H.P.F.; stool—ova of ascariasis lumbricoides; blood urea 12.5 mgms. per cent; blood sugar 83 mg. per cent; Kahn test negative.

A clinical diagnosis of ovarian malignancy was made from the above mentioned findings.

An exploratory laparotomy was carried out on 15th March, 1969, mainly from the diagnostic point of view. The findings at the time of laparotomy were as follows:

The uterus and the adnexae were normal. There was a mass arising from the

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right broad ligament. It was markedly adherent to the anterior abdominal wall in its lower part. There were huge dilated vessels running on its surface. It was difficult to define the lateral extent of the tumour.

Initially, the origin of the tumour appeared to be obscure. A possibility of the tumour arising from the urinary bladder was also kept in mind, but on careful examination at a later stage, this possibility was ruled out.

Hysterectomy with bilateral salpingo-oophorectomy and removal of the tumour was contemplated. While attempting this, the tumour wall was injured and the tumour tissue was scooped out as the general condition of the patient and the markedly adherent tumour in the broad ligament did not permit any further manipulations. The tumour tissue was gelatinous. The abdomen was closed without any further procedure.

Histopathological report: Microscopic examination revealed stellate cells which were separated by loose homogenous appearing stroma. The stroma was stained pink on H.E. staining, suggesting its mucoid nature. Fine reticulum fibres could be seen traversing through the stroma.

But for the mild fever, the post-operative period was uneventful. She was discharged on 11th post-operative day. She did not have any urinary complaints and the oedema of right lower limb had also reduced.

The patient was seen repeatedly after the surgery over a period of 3 months. The residual tumour mass, which was palpable in the suprapubic region at the time of discharge remained the same. Thereafter, she never had any bladder symptoms. The oedema of the lower limb and the abdominal wall had completely disappeared.

Discussion

The myxoma may be present as such or may be a part of a mixed mesodermal tumour. Taylor (1958) has reviewed 40 cases of mixed mesodermal tumours of the female genital tract, the histological examination of which showed myxosar-

coma with clusters of embryonic cells. Most mesodermal mixed tumours arise in sites distant from Gartner's ducts, whereas they have not been found in the broad ligament (Meikle, 1936). Wurtz (1949; quoted by Taylor) and Ober and Edgcombe (1954) have reported such tumours of the broad ligament.

The myxoma in its structure resembles the primitive mesenchyme or the mucoid tissue (Wharton's jelly) of the umbilical cord. It was Ewing (quoted by Anderson) who postulated that it arises from the embryonic rests, since this tissue is not seen in an adult. According to Willis (1960), it represents the re-appearance of mucin in the inter-cellular matrix of some fibroblastic growths.

Stout (1948), who including his own cases, has reviewed 140 cases of myxomas, other than those of the heart, from the world literature, defines myxoma as follows:

'It is a true neoplasm, composed of stellate cells, set in a loose mucoid stroma through which course very delicate reticulin fibres in various directions.'

The resemblance of this tumour to primitive mesenchyme has been noted by Greco, Harris, Hogenaver, Saturdayski and others. The mucoid substance is not mucin but is hyaluronic acid. According to Meyer (quoted by Stout), it is this property which suggests that the myxoma is a neoplastic reproduction of primitive mesenchyme. Occasionally, there may be formation of denser areas due to a thickening of the delicate connective tissue. This may resemble fibrosarcoma, but no other metaplastic changes occur.

The myxoma occurs in the heart, skin, subcutaneous and aponeurotic tissues, certain bones and the genitourinary tract. It is usual to find them in other situations. In the genitourinary tract, the urinary bladder, the spermatic cord and the vulva are most commonly affected. In the urinary bladder, the trigone is the most commonly affected site and it is an infant who commonly suffers from it.

Jonas (1937) has reported the largest authentic myxoma. After 3 years of abdominal enlargement, a tumour weighing about 5 kg. was removed from a 36 year old woman. The tumour originated from the parametrium and extended upwards to both sides of the diaphragm. It was gelatinous with cystic areas and histologically a vascular myxoma.

The natural history of a myxoma is that it grows very slowly and may suddenly enlarge rapidly. At times there may be a rapid growth followed by inactivity. Metastasis has never been reported except from myxoma of the heart.

Surgical excision is the only line of treatment. Radiotherapy has been entirely (or partly) unsuccessful.

Stout (1948) is of the opinion that the only proper way of dealing with the various tumours derived from the mesenchyme, is to biopsy them before undertaking treatment. This would serve as a guide. In order to prevent recurrence, it is necessary to remove a generous amount of apparently uninvolved surrounding tissue. Since the tumours infiltrate, excision of the tumour close to the apparent junction of the tumour and the normal tissue has frequently been followed by recurrence. If this takes

place in some region where vital structures can be affected, such as the bladder and retroperitoneal region, a fatal outcome may be the result.

In the comment, we would like to stress the importance of a diagnostic laparotomy in cases of a lump in the abdomen. As diagnosis should always precede treatment, it is worth taking at least an open biopsy rather than subject the patient directly to radiotherapy. A case of myxoma of broad ligament was thus diagnosed and the patient relieved of her complaints. Short of laparotomy, she would have been passed off as a case of ovarian malignancy.

Summary

A case of myxoma of the broad ligament is presented.

A review of the literature on myxoma is also given.

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See Fig. on Art Paper VII