FIBROSARCOMA OF THE ROUND LIGAMENT

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Sarcoma of the round ligament is among the uncommon lesions in the genital tract. Very few cases have been reported in the literature. Jeffcoate makes no mention of sarcoma of the round ligament in his 'Principles of Gynaecology'. Edward Hall in his book on 'Applied Gynaecological Pathology' only mentions, 'Lipoma and sarcoma are very rare tumours of the round ligament'. Taussig collected five cases from the literature and added one of his own. Novak mentions one case which was encountered clinically. A number of these cases are doubtless never reported.

A proper estimate of the incidence of sarcoma of the genital tract is extremely difficult to state, for there is considerable divergence of opinion among pathologists in distinguishing between a lowgrade sarcoma and a cellular myoma. Corscaden and Singh noted an incidence of only 0.13 per cent of sarcomas among myomas. Out of all the sites for gynaecological malignancy round ligament is the rarest one.

This case is reported for its rarity and some interesting features.

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Case History

Mrs. S. D. D., aged 30 years, was admitted in B. Y. L. Nair Hospital Bombay, with a history of lump in the abdomen for a period of five months and severe colicky lower abdominal pain for one day. There was no history of vomiting, constipation or burning micturition. She attained menarche at the age of 13 years. She had her menstrual period 9 days prior to admission; the periods occurred at regular intervals of 28 days, the bleeding lasting for 2 days.

She married at the age of 17 and was divorced 9 years back. The patient never conceived. Past history was not relevant, except for the gradually increasing lump in the lower abdomen.

On examination, she was found to be fairly well-nourished and obviously not in great pain. She looked anaemic. The cardiovascular, respiratory and central nervous systems were clinically normal. There was a swelling up to the umbilicus, seen arising from the pelvis. The swelling was nodular to feel and the margins were irregular. Mobility was restricted and there was tenderness on deep palpation. On bimanual examination, the cervix was felt to be directed downwards and was pushed to the left and posteriorly. A mass of the size and consistency described above was palpable in the right and the anterior fornix. The uterus could not be palpated seperately. The uterine sound went in for 3.5 inches. On rectal examination, the uterus could be felt separately. This was thought to be either a case of an ovarian tumour or a subserous fibroid.

Routine investigations like haemoglobin estimation, total and differential W.B.C. count, erythrocytic sedimentation rate;

Kahn test and screening of chest were done. Except for anaemia these were within normal limits. Blood group was A, Rh negative. Pre-operative blood transfusion of one unit (350 cc) and an antianaemic line of treatment improved her from 60 to 74 per cent when the patient was taken up for operation. Pelvic arteriography was done. There was increased vascularity in the tumour region and atypical tumour vessels were noted. The intramural arteries before they enter the substance of the myoma are often straight and arched, lacking in the normal corkscrew appearence. (Capsular blood vessels). The intrinsic arteries in the mass of myoma are straight and irregularly tortuous branching and communicating systems which can be readily distinguished from the rest of the arterial system in the region. On these grounds the arteriographic diagnosis was a fibroid with increased vascularity.

The patient was operated on 22-5-64 under spinal anaesthesia. On opening the abdomen with a midline subumblical incision, the peritoneal cavity was seen to contain blood-stained fluid which was collected for cytological examination (only R.B.Cs, no malignant cells detected). The uterus, the tubes and the ovaries looked perfectly normal. There were no adhesions. A soft, friable and fleshy mass of about 10 inches diameter was found to be in relation to the left round ligament. The friable nature of the growth and increased vascularity, along with blood-stained fluid in the peritoneal cavity, made us think in terms of malignancy and a frozen section examination confirmed the diagnosis of sarcoma.

Exploration of lymphatic glands, intestines, liver, kidneys and stomach revealed no metastases anywhere in the abdomen. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was done. The postoperative course was uneventful. The histopathology report read as fibrosarcoma of the round ligament (Figs. 1 to 4). The patient was directed to another institution for deep x-ray therapy.

The patient is in a state of perfect health in the month of January, 1966 and there is no evidence of local recurrence or metastases clinically.

Comments

Sarcoma of the round ligament is extremely rare. Any neoplasm of the round ligament is hardly ever thought of clinically because of its rarity and the diagnosis is invariably made on exploratory laparotomy. If the tumour is not very large, so that the ovaries can still be palpated, the differential diagnosis can at times be made. Ordinarily this is impossible. The clinical picture presented depends upon the part of the round ligament that is affected. The round ligament is a part of gubernaculum persisting between the uterus and the labium majus. Cases have been reported as fibromas of the round ligament presenting with different clinical pictures. It may present as a tumour situated in the groin or in the labium majus or in the abdominal portion of the round ligament.

There is no question that proper treatment of sarcoma of the round ligament should be total hysterectomy with removal of both adnexae. Generally, however the diagnosis is not made preoperatively and the usual impression is that one is dealing with benign pathology. Should less than a complete operation be done, careful evaluation of the cativity of the sarcoma with mitotic count should be carried out. Removal of retained adnexa should be considered, although the surgeon might rationalise that in this blood borne disease the patient is probably doomed if the residual adnexa contain the tumour cells. X-ray of the chest must be a routine if the patient is to be reoperated.

Results with postoperative irradiation with sarcoma seem encouraging,

TABLE

Name	Microscopic Diagnosis	Age yrs.	Symptoms	Location	Size	Shape	Consistancy	Outcome
Saenger	Fibromyo-sarcoma	22	Lump: 5 years	Rt. inguinal region	21 x 18 cms.	Wedge	Firm	Removal difficult, died on second day,
Fuerst	Fibrosarcoma	38	Lump: 6 years	Lt. labium majus.	Hen's egg.	Cylindrical	Hard	Removal easy and recovery.
Weber	Myosarcoma	25	Lump: 3 years	Lt. inguinal canal	Child's head	Circular	Semi-solid	"
Frigysi	Fibrosarcoma	43	Abdominal pain: 6 mths.	Rt. hypo-gastrium	Small head.	Oval	Hard	"
Maly	Myosarcoma	50	Lump: 16 years	Rt. labium majus.	Goose egg.	Oval	Pseudo-fluctuating	"
Taussig	Spindlecell	44	Lump: 2 years	Rt. hypo-gastrium.	Grape	Oval	Semi-solid	"
Present case	Fibrosarcoma	30	Lump: 5 mths.	Lt. hypo-gastrium.	25 cm. diameter	Round	Firm	"

Novak's case not included for want of details.

although sarcomas in general have acquired a reputation for being radio-resistant.

In view of the rarity of sarcoma of the round ligament and the fact that this tumour was of this type, we think it worthwhile to tabulate the six cases reported previously by Taussig.

In Novak's patient (he mentions another case) the tumour recurred about 9 months after removal. Extirpation of the recurrent mass followed by irradiation was again followed by recurrence, with death about 3 years after the original operation. The tumour was of the spindle-cell variety though most of the few reported cases have been designated as fibrosarcoma or myosarcoma.

In general these round ligament sarcomata may be described as slowly growing and of low grade malignancy clinically. Metastases are nowhere described (except in Novak's case) nor were we able to find any recurrence so far after the operation. Difficulties in deciding the line of treatment will always remain a problem as is the case with all rare conditions.

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Figs. on Art Paper IV