

FIBROMA OF THE OVARY

(A study based on 5 year review of ovarian tumours)

BY

D. BHASKARA REDDY, M.D.,

Department of Pathology, Andhra Medical College, Visakhapatnam.

Fibroma of the ovary is a benign connective tissue tumour of a type common to other organs of the somatic body. Incidence of these tumours varies from 1.7 to 5 per cent of ovarian neoplasms. The first description of ovarian fibroma was given by Astruc in 1743, who emphasized the rarity of these tumours. Very little attention was paid to clinical aspects of the disease for nearly one hundred and forty years, and only sporadic cases were reported in the literature. In 1882 Coe studied the histogenesis of ovarian fibromas and decided that they represented an overgrowth of ovarian stroma. In 1902 Peterson first correlated clinical and pathological data from reports of a total of 82 cases found in literature and added two cases of his own. In 1937 Meigs and Class recorded the histories of four patients who had ascites and hydrothorax associated with fibroma of the ovary, which was relieved by removal of tumour, and further added 27 cases by 1943. This syndrome usually goes by the name of Meigs. Dockerty and Masson in 1944 collected a total recorded cases of 283 fibromas and gave detailed clinical and pathological studies of these cases. Recorded cases of fibroma of ovary from our country are rare and

sporadic case reports have occurred from time to time.

Methods and Materials

Biopsy records of Pathology Department of Andhra Medical College, Visakhapatnam, were reviewed for the past five years (1949-to-date). Total number of ovarian tumours noted. Percentage incidence of various types of ovarian tumours are recorded with particular reference to fibroma of the ovary.

Seven cases of fibroma of the ovary were encountered during this period. All the slides were reviewed and were routinely stained with Haematoxylin and Eosin, Van Gieson and for fat. Detailed case reports of two cases of fibroma of the ovary, which were observed in the Department within a short space of three months in 1954 are recorded below.

The percentage incidence of various ovarian tumours as observed in the Andhra Medical College is recorded below. Fibroma of the ovary forms 5 per cent of all ovarian neoplasms.

Case Report 1

A female R. V. aged 45 years was admitted in the Gynaecological wards King George Hospital, Visakhapat-

TABLE I

Showing percentage incidence of ovarian neoplasms as observed in the Pathology Department, Andhra Medical College, Visakhapatnam (1949 to-date)

	Number	Percentage
Serous cysts	37	27
Multilocular pseudomucinous cystadenoma	29	21.5
Dermoid	17	13
Papilliferous cystadenoma	12	9
Carcinoma	11	8
Papilliferous cystadeno carcinoma	10	7
Fibroma	7	5
Dysgerminoma	6	4.5
Granulosa cell tumour	2	1.5
Teratoma	2	1.5
Serous Cystadeno-fibroma	1	0.75
Fibromyoma	1	0.75
Total	135	

nam on 12-4-54 for swelling of the abdomen of three years' duration.

Obstetric and Gynaecologic history: Nil remarkable.

The present complaint started three years ago with amenorrhoea for 5 months. After that she noticed a small swelling 1" diameter which gradually grew to the present size. No history of vomiting. Now and then there used to be red and white discharge per vaginam. Patient was dyspnoeic.

Examination of the patient revealed a circumscribed hard swelling of 10" diameter occupying the whole of the abdomen, freely mobile, and could be pushed into the pelvis. The swelling extended into the loin. Dull to percussion; no evidence of free fluid.

Vaginal examination revealed a retroverted uterus separate from the tumour mass. Uterus normal in size. Deflected to the left side and could not be felt through any fornices.

Investigations: B.P. 130/80 mm of Hg.; H.B. 65%; Blood urea 20 mg. per cent; Urine examination—No albumin, no sugar.

X-ray abdomen-AP and lateral views, soft tissue mass visualised.

Intravenous Pyelogram—Both kidneys appear to functional normally; No evidence of any external pressure.

Preoperative diagnosis: Pedunculated ovarian tumour.

On 25-4-54, under spinal anaesthesia, the abdomen was opened. A hard tumour of 2 weeks' size was seen arising from the left ovary with a long pedicle which had undergone

two complete twists. A few adhesions to tumour mass were noticed, and prominent veins coursing through. They were clamped, twists undone, total hysterectomy with bilateral salpingo-oophorectomy done, and abdomen closed in layers. Patient had an uneventful post-operative course and was discharged from the hospital cured on 15-6-54.

Gross-Specimen

The specimen consisted of the uterus, right tube, right ovary and the tumour mass with the pedicle. The tumour was oval in size measured 9" x 6". Smooth and very hard in consistency. We could cut through the tumour with great difficulty. The tumour weighed 4,050 grammes.

Cut section revealed well encapsulated tumour, whitish in colour and presented a whorled appearance in areas. Central area of the tumour showed degenerative changes in the nature of a cyst and was filled with soft cheesy material (Fig. 1). Rest of the tumour did not reveal any change.

Uterus, right tube and ovary—nil contributory.

Microscopic appearances: (1394-97/54).

Histological study of the uterus, right tube and ovary did not reveal any abnormality. Almost the entire tumour was studied. Sections were routinely stained with Haematoxylin and Eosin, Van Gieson and for fat. Many of these sections revealed the tumour to be entirely composed of connective tissue of varying histologic appearance even in different

parts of the same tumour. Cells were arranged in interlacing bundles of whorls with indistinct cell borders and cytoplasm finally granular and wavy nuclei (Fig. 2). In some areas fibrous tissue was light textured with abundant intercellular substance. No definite malignancy was seen. Examination for the presence of fat was negative.

Morbid anatomical diagnosis. "Fibroma of the ovary."

Case Report 2

A female, G. B., aged 50, was admitted in the gynaecological wards of King George Hospital on 7-5-54 for distension of abdomen of 6 months' duration.

Obstetrical and gynaecological history. Married 35 years ago, has two children. Periods were normal and attained menopause 3 years back.

General examination. A solid lobulated tumour of about 6" diameter was felt. Prominent veins over the abdomen were seen. Not freely mobile. Dull to percussion and no evidence of free fluid. Vaginal examination revealed a completely atrophied cervix and solid stony hard tumour in the lateral and anterior aspect. Uterus could not be made out.

Rectal examination. Tumour lies in front of the uterus.

Preoperative diagnosis. Malignant ovarian tumour.

On 24-7-54 under spinal anaesthesia abdomen was opened. Solid ovarian tumour arising from the left side and extending upto xiphisternum was visualised. There were no

adhesions and a large pedicle, with tortuous veins, was seen. Uterus and tubes normal. Total hysterectomy left ovariectomy, left salpingectomy, right salpingo-oophorectomy done and abdomen closed in layers. Patient had an uneventful post-operative period and was discharged cured on 9-8-54.

Gross specimen

The specimen showed uterus with the tubes and ovary of the left side and right tube along with ovarian tumour. Tumour weighed 3,360 grammes. It was circular of 6" diameter. Nodular, slightly bluish in appearance with prominent veins



Fig. 1

Case report 1: Photograph of hemi-section, surface of the ovarian tumour showing central cystic degenerative change. The pedicle can be seen at one pole.

coursing over the tumour. Cut section revealed a greyish white tumour with typical whorled pattern (Fig. 3) and blood vessels could be seen over the cut surface. Other tissues did not reveal any abnormality.

Microscopic examination (2126-30/54)

Several sections stained with Haematoxylin and Eosin and Van Geison were studied. It was predominantly a connective tissue tumour and no muscle fibre could be made out. The cells were arranged in typical whorled pattern (Fig. 4). The cell borders were indistinct and in areas wavy bundles of fibrous tissue could be made out, and was cellular. Numerous blood vessels could be seen in the sections studied. Sections were negative for fat stains.

Morbid anatomical diagnosis. "Fibroma of the ovary".

Comment

The tumours usually arise in advancing age at or near the menopause. The age incidence of fibroma of the ovary in the cases studied was 30, 30, 40, 40, 55, 45, and 55 respectively, the minimum age being 30 and maximum 55. Average age incidence was 42 years. One case attained menopause. These tumours have to be distinguished from thecomas which also present an identical picture and which could only be eliminated by the absence of fat with the help of frozen section. Most of these patients come for an abdominal tumour which has been very well exemplified in all the 7 cases studied. All these patients came for an abdo-



Fig. 2

Case report 1: Photomicrograph illustrates dense wavy bundles of fibrous tissue arranged in a whorled pattern (H & E x 60).



Fig. 3

Case report 2: Photograph shows the cut surface of the ovarian fibroma along with the uterus, tube and ovary and tube of the opposite side. The whorled pattern is seen very clearly.



Fig. 4
Case report 2: Photomicrograph illustrates fine wavy bundles of fibrous tissue arranged in a whorled pattern. (H & E x 60).

minal swelling. Rarely endocrinal symptoms may be present. Two of the 7 cases also had amenorrhoea. Ascites need not be present in every case of fibroma of the ovary, as it is recorded only in 18 per cent of cases. There was only one case of ascites in this series of 7 cases and she had no evidence of free fluid in other serous cavities. Size of the tumour is not the criterion for ascites. Only 10 per cent of these tumours undergo degenerative changes and one case (case report 1) of the 7 cases showed cystic degeneration. Twists of the tumours are rare and in the first case the tumour had undergone torsion, as the pedicle was long.

Fibromas are unilateral in 90 per cent of the cases and all the 7 cases recorded are unilateral and offered good prognosis after removal, and

this was very well illustrated in the two cases recorded.

Summary

1. Literature on fibromas of ovary briefly reviewed.
2. Percentage incidence of ovarian fibroma with reference to ovarian neoplasms as occurred during the five years period in Andhra Medical College, Visakhapatnam is recorded.
3. Seven cases of fibroma of the ovary encountered during the above period and detailed case reports of two cases which occurred during the short period of three months in 1954 are recorded.

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