FIBROTHECOMA OF THE OVARY

(A Case Report)

by

B. N. CHAKRAVARTY,* M.O. (Cal.), M.R.C.O.G. (Lond.)

and

S. K. GUPTA,** M.D. (Cal.), D.C.P. (Lond.), F.R.C. Path. (Eng.)

Introduction

Both, fibroma and thecoma are rare tumours of ovary. Co-existence of two in the same tumour is rare. The present case is being recorded not only for its rarity but also for the complex clinical behaviour which the tumour exhibited for a period of 15 years during which the patient lived and just survived with periods of symptomatic relief followed by episodes of tumourogenic distress.

CASE REPORT

Mrs. N.B., 51 years, P_1 + O, L.C.B. 28 years ago was admitted to the department of obstetrics and gynaecology, N. R. S. Medical College Hospital, Calcutta, on 10th September, 1972 with symptoms of a discharging sinus and a lump in lower abdomen. The discharging sinus at Mc Burney's point persisted with periodic remission since an incision was made in Aug. 1971 by a general surgeon for what he thought as an appendicular abscess.

Past History: A long past history related to the present disease is chronologically summarised as follows:

Aug. 1957: Diagnostic curettage for persistent menorrhagia. Histological report—hyperplastic endometrium.

Nov. 1958: Total hysterectomy for persistent and intractable menorrhagia. Both ovaries were preserved. Histological report could not be traced.

May, 1961: Laparotomy for ovarian tumour. Incomplete removal due to dense adhesions. Histological report—Fibroma with suspicion of Sarcoma at one place.

Upto 1963: Symptom free.

April, 1963: Visited a doctor with ascitis and lump in lower abdomen. Diagnosed as a case of inoperable malignant ovarian tumour.

April 1963-May 1966: Repeated paracentesis. Initially fluid was straw coloured, but subsequently this was red. Intolerant to cytotoxic drugs. External radiotherapy did not help much.

May-June 1966: Consulted a physician, who treated her on the line of portal cirrhosis. Had symptomatic relief and ascitic fluid disappeared. Since then she was leading more or less a normal life with a tumour in lower abdomen upto August 1971.

August 1971: Had features of acute abdomen with rise of temperature, vomiting and a red tender swelling pointing at the right iliac fossa. A general surgeon did an emergency drainage of pus making an incision at the McBurney's point. Copius amount of foul smelling pus was drained. Her acute symptoms passed off but drainage of pus continued through the incision line, which ultimately formed a sinus with periodic remission.

Sept. 1972: She was admitted to N. R. S. Medical College with this persistent sinus and a lump in lower abdomen.

On Examination: She was thin, emaciated and anaemic. Neck glands were not palpable. Blood pressure 120/80lm of Hg., pulse 80/min., Temperature 98.4°F., HG% 7.5 gm%.

Abdominal Examination, a lobulated lump was found occupying the entire lower abdomen reaching upto umbilicus. Upper abdomen was

*Reader, Department of Obstetrics & Gynaecology.

**Reader, Department of Pathology, N. R. S. Medical College, Calcutta.

Received for publication on 6-6-1974.

scaphoid, liver was not palpable. There was no fluid in the peritoneal cavity. A discharging sinus was noted at the right quadrant of lower abdomen. Foul-smelling pus was continuously pouring out. The lump was firm with well defined margins.

Pelvic Examination: The lower pole of the lump could be felt pushing down the vault of the vagina. Anterior wall of the rectum was pushed back. A provisional diagnosis of solid ovarian tumour was made.

An attempt was made to improve her general condition and to control infection as far as possible. On 18.11.72 laparotomy was performed.

Operative Findings

Abdomen was opened by right paramedian incision. Incision had to be extended about two inches above the umbilicus to get into the peritoneal cavity because lower down intestinal coils were adherent to parietal peritoneum and the tumour. On separating the adhesions two tumours were detected. One on the right side was relatively high up which was communicating to the parieties, the layers of which broke down forming a sinus. The other one on the left side was situated deep in the pelvis. There was no free fluid in the peritoneal cavity, neither there were nodules on the parietal peritoneum. At first, it seemed that it was not possible to remove the tumour because of dense adhesion wih multiple loops of intestines and omentum. Finally, a space could be created by breaking up the adhesions and both the tumours could easily be shelled out as if the tumours were enucleated from their capsules. After the tumours were removed, it appeared that the intestines and omentum were glued together to form a sort of pseudo capsule for the tumour. The posterior and left lateral walls of the pelvis were left bare. A few bleeding points had to be secured and ligated. Abdomen was closed in layers leaving behind a corrugated drain. Postoperative period was a bit stormy, but she left the hospital on 26.1.73.

Gross Appearance of the Tumour

The operated mass, multilobular in type measuring about 15 cm x 9 cm x 6 cm was firm in feel. Surface was glistening in character (Fig. 1). Cut surface was variegated in appearance often showing cystic, haemorrhagic and mucoid areas which looked yellowish.

Microscopic Pathology

Several pieces of tissue from representative areas of the tumour were examined histologically. In addition to H & E Stain, sections were also stained by Mallory's method for muscle and Sudan IV for fat. Throughout the sections the predominant feature was the presence of bands of either spindle shaped or fusiform cells often in interlying fascicles (Fig. 2). In between these bands comparatively acellular areas of collagenous fibrotic nature were seen. Cells plump in nature and arranged in epitheloid groups could be identified in some areas (Fig. 3). Some of these cells were laden with variable amount of fat. In none of the sections muscle bands were seen although there was tendency to form whorls at places.

Follow up

She was being followed up at regular intervals and was apparently free from disease upto 22.7.73. On 2.11.73 she came to the follow up clinic with symptoms and signs suggestive of intestinal obstruction. She was admitted in the surgical unit of the same hospital. As conservative methods failed to relieve her obstruction, laparotomy had to be done on 4.11.73. On laparotomy, multiple distended coils of small intestines were found adherent to some pelvic tumours. On separating the adhesions, two similar tumours, though smaller than previous ones removed, were found occupying identical positions in the pelvis. These adhesions were responsible for obstruction. Adhesions were separated resulting in intestinal injuries at few places. These were repaired. Considering the condition of the patient, no attempt was made to remove the tumours. She developed paralytic ileus and died on the 8th postoperative day.

Discussion

Co-existence of fibroma and thecoma is a well recognised histological entity. Though histogenesis of feminising ovarian neoplasm is still controversial, yet there is fair agreement that both granulosa and theca cell tumour have a common origin in the ovarian mesenchyme (Banner and Dockerty, 1945; Novak and Woodruff, 1963). From this common mesenchymal stem cell, various epithelial (granulosa

cell) and connective tissue (theca cell or fibroma) may arise and as such admixture of these tumours is not surprising.

It is sometimes difficult to differentiate thecoma from fibroma both on gross and microscopic pathology. The coarse, whorled, fibrous character of the cut surface may easily be mistaken for fibroma of the ovary. Cut surface of the tumour showed cystic haemorrhagic and mucoid areas and looked yellowish, the features commonly observed in Theca cell tumour.

Microscopic difference between fibroma and thecoma is likewise difficult. The presence of doubly refractile fat in large amounts within the cells and to a lesser extent in the surrounding connective tissue, shown by lipoid staining is characteristic of theca cell tumour and never found in fibroma of the ovary. In the present case, some of the cells were found laden with fat and the presence of bands of either spindle shaped or fusiform cells often in interlacing fascicles with a tendency to form whorls at places guided us to establish the diagnosis of Fibrothecoma.

The endocrine potentiality of thecoma is greater than that of granulosa cell tumour. This is substantiated by the observations of Mansell and Hertig (1955) and Flick and Banfield (1956). The case recorded here had hysterectomy in 1959 because she had menorrhagia and diagnostic curettage report revealed endometrial hyperplasia. At that time ovaries were conserved and looking retrospectively, perhaps a small theca cell tumour within the ovary was missed.

Subsequent report of a partially removed ovarian tumour in this case revealed evidence of fibroma with questionable change into sarcoma. The diagnosis of sarcoma can surely be ruled out by the very fact that the patient had survived 12 years following this diagnosis. Perhaps that was a cellular benign fibroma which might have resembled sarcomatous change at one place.

Appearance of ascitic fluid is not uncommon with fibroma or thecoma. This was not a typical case of Meigs syndrome as there was no hydrothorax and the fluid disappeared before the tumour was removed.

Theca cell tumours are usually benign and are unilateral. Yet in this case the tumours were bilateral and on clinical grounds of recurrence and dense adhesions, possibility of malignancy could not be ruled out. Histologically they were benign. Novak and Woodruff (1967) believe that it is difficult, if not impossible, to evaluate malignant trends of any of the "special" tumours by mitosis count or any close scrutiny of individual tumour cells. Pedowitz *et al*, (1954) reported the incidence of malignancy as 3% in theca cell tumours. Gray (1963) reports one case of bilateral large fibroma-like theca cell tumour apparently of very low grade malignancy associated with endometrial carcinoma. Novak (1954) has stated that if these tumours are not malignant histologically, they are less likely to recur or metastasise but there are not infrequent exceptions.

Considering this case as one of those exceptions, possibility of low grade malignancy was there even in the absence of positive histologic findings. Existence of such low grade malignancy can explain the long clinical picture and recurrence in this case.

Summary

A case of fibrothecoma has been reported. Histogenesis of the tumour has been briefly discussed. Endocrinal potentiality

of this tumour has been proved by endometrial hyperplasia and persistent menorrhagia for which the uterus was removed 15 years ago. And yet the tumour was not detected at the time of hysterectomy because possibly this was microscopic in size. The tumour was associated with ascitis but not hydrothorax—an example of pseudo Meig's syndrome. Possibility of low grade malignancy of the tumour has been suggested based solely on clinical observation.

Acknowledgement

We are grateful to our Principal, Surgeon Commdore G. C. Mukherjee and Prof. D. L. Poddar, Prof. Director, Department of Obstetrics and Gynaecology, N. R. S. Medical College, Calcutta, for their permission to use hospital records for the purpose of reporting this case.

References

1. Banner, E. A. & Dockerty, M. B.: Surg. Gynec & Obst. 81: 234, 1945.
2. Flick, F. H., Banfield, R. S.: Cancer. 9: 731, 1956.
3. Gray, L. A.: Progress in Gynec., Vol. IV, p. 465, By Meigs J. V. and Sturgis S. H., Grune and Stratton, New York and London, 1963.
4. Mansell, H. and Hertig, A. T.: Obst. & Gynec. 6: 385, 1955.
5. Novak, E.: Am. J. Obst. & Gynec. 68: 19, 1954.
6. Novak, E. R. & Woodruff, J. D.: Gynec. & Obst. Pathology, Ed. 6, p. 399-413, 1967, W.B. Saunders Company, Philadelphia and London.
7. Pedowitz, P., Felmus, B. L., Grayzei, D. M., Am. J. Obst. & Gynec., 68: 1519, 1954.

See Figs. on Art Paper VII