CYSTADENOFIBROMA OF THE OVARY

(A Study of 5 Cases)

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Cystadenofibromas of the ovary are very rare tumours. Wolfe, in 1927, described the first case. Frankl (1927) gave a detailed report on the general subject describing 17 cases of fibroma ovary adenocysteum, but many of them on further study proved to be Brenner tumours. Scott (1942), while reviewing the ovarian tumours for the last 20 years in 26,000 gynaecological specimens discovered 14 such tumours. Later, Sharman and Sutherland (1947) described one more case. Novak, Woodruff and Linthieum, in 1962, reviewing 1950 ovarian tumours from the ovarian tumour registry, came across 44 cases of fibroadenomas. Since these tumours are rare, even a single case is worth recording. Case reports from India are few. Reddy, 1955, from Visakhapatnam, recorded a case of cystadenofibroma in a female aged 60 years whose chief complaint was swelling and pain in the lower abdomen. He also further observed squamous metaplasia in some of the glands, which is a precursor of a malignant change. On reviewing the records of the Pathology Department, Guntur Medical College, we came across five cases of cystadenofibromas during the period of ten years, i.e., from 1955-65 (October) and their incidence is given in Table I, followed by case reports.

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Case 1

A Hindu female, aged 40 years, complained of a mass in the lower abdomen since 11 months. No pain. Abdominal examination revealed a mass of 4 weeks pregnant uterus size. Vaginal examination revealed a solid swelling in the right fornix. A diagnosis of malignant ovarian tumour was made. Operation — total hysterectomy with right ovariotomy and left salpingo-oophorectomy.

Gross appearance: Cervix was normal. Uterus showed submucous fibroid. Separately attached to both tubes, there was a solid papillary granular mass of 2½" x 1" x 1". Microscopic diagnosis was cystadenofibroma ovary.

Case 2

A Hindu female, aged 40 years, came with a complaint of ball rolling type of movement in the abdomen since 3 months, and an attack of pain in the right iliac fossa

TABLE I

Showing the incidence of ovarian tumours from 1955-65

	Name	No.		Name	No.
1.	Thecoma	3	12.	Brenner	3
2.	Fibroma	5	13.	Adenofibroma	5
3.	Granulosa cell tumour	11	14.	Primary solid carcinoma	55
4.	Gynandroblastoma	1	15.	Adult cystic teratoma	41
5.	Dysgerminoma	18	16.	Dermoid undergoing malignant change	2
6.	Unclassified cystadenomas	6	17.	Teratocarcinoma	4
7.	Serous cystadenoma	74	18.	Metastatic tumours	6
8.	Pseudomucinous cystadenocarcinoma	1	19.	Meso-nephroma	2
9.	Serous cystadenocarcinoma	19	20.	Embryonal carcinoma	1
10.	Pseudomucinous cystadenoma	100		Total	358
11.	Pseudomucinous with Brenner	1			

radiating to the back, colicy in nature. Married 26 years; three children; periods 3-4/23-30 regular. Last menstrual period 22 days ago. Vaginal examination showed cervix to be forwards; uterus retroverted Normal size, fornices free.

Clinical diagnosis: Twisted papillary cystadenoma.

Gross appearance: Tumour with uterus, tubes and ovaries weighed 215 gms. On one side of the uterus, there was a white-walled mutilocular cyst of 4″ in diameter. Opposite ovary showed a tumour mass of 3″ x 2½″, white, solid with cystic areas. Miscroscopic diagnosis: Cystadenofibroma.

Case 3

A Hindu female, aged 22 years, was diagnosed as ovarian cyst and was operated for the same. Gross specimen showed a tumour weighing 220 gms. Solid 5″ x 4″ with cystic areas. Histopathological diagnosis was fibrodenoma.

Case 4

A Hindu female 42 years, was diagnosed as an ovarian tumour and the tumour removed at operation.

Gross appearance: Tumour weighed 398 gms. Both tubes and ovaries were received. Right ovary showed a tumour mass of 6″ x 4″. Cut section was yellowish white, solid homogenous with cystic and gelatinous areas.

Histopathological diagnosis: Cystadenofibroma, no evidence of malignancy.

Case 5

A Hindu female, aged 16 years, came to hospital with a complaint of pain in the abdomen since two months. Dysmenorrhoea of 5 months. Menarche 6 years. Periods 5-6/30 painless, regular. Married 4 years. L.M.P. 10 days. Vaginal examination revealed a mass about 18 weeks' size. Cervix pointed upwards, uterus retroverted, of normal size.

Clinical diagnosis: Fibroid? Ovarian cyst?

Gross appearance: Tumour mass weighed 249 gms. cystic in nature 5″ in diameter. Cut section showed unilocular cyst — cyst wall smooth, contained serous fluid. At one place, there was a solid area of 1½ cm. in diameter.

Histopathological diagnosis — Cystadenobroma with calcification.

Discussion

Cystadenofibroma is usually a histological diagnosis, as such diagnosis is rarely made pre-operatively. In our five cases, the pre-operative diag-

nosis was an ovarian tumour and in one case malignancy was suspected, but histological examination of these tumours proved them to be cystadenofibromas. Several sections from multiple paraffin blocks were studied and were routinely stained with haematoxyline and eosin. Some of them were treated with special stains as Van Geison, and stains to demonstrate mucin. The tumour for the most part consisted of cystic spaces and solid areas of fibrous tissue and glandular elements. In solid areas the tumour consisted of cellular fibrous tissue which resembled a leiomyoma though the differential staining showed it only to be fibrous tissue. The cyst was lined by cuboidal epithelium, at some places it was lined by multiple layers of epithelium. Amidst fibrous tissue stroma, invading glands arranged in acinar pattern lined by cuboidal epithelium were seen. Mucicarmine stain revealed secretory droplets in one of the tumours. Calcified areas were also seen.

All these cases clearly prove the fibro-adenomatous nature of the tumours with the predominent fibrous tissue stroma. After the work of Robert Meyer in 1916, all are unanimously of the opinion that serous cystadenomas are derived from germinal epithelium. The similarity of the epithelial lining of the cystic areas in adenofibromas to that of invaginating surface epithelium and germinal inclusion cysts places this group in the serous epithelial class. This agrees with aetiological impressions held by Dworzok (1932) and Wolfe (1927); the latter is of the opinion that fibromatous surface sprouting from the ovarian cortex occurs first which is later invaded by piled up germinal epithelium. The cystic spaces probably multiply by budding and progressive invagination. It is often said that psammoma bodies may frequently be persent in these tumours but it may not be a consistent finding; as is also the case in cystadenomas. Usually these tumours are solid with minute cystic spaces when they are known as adenofibromas, or partially cystic with at least one-fourth of the mass being solid (cystadenofibromas). In our cases, 4 were solid and in one 2/3rds of the tumour was cystic. They are unilateral in the majority of cases. In Scott's series out of 15, two were bilateral. In the present series, out of 5, one was bilateral. Very rarely it produces endocrine effect. None of the patients in the present series had suffered from endocrine disturbances. Malignant transformation has been noticed occasionally. No case in the present series showed malignant transformation.

Summary

1. Literature on cystadenofibroma is briefly reviewed.

2. Five cases of cystadenofibromas are recorded and the histogenesis briefly discussed.

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Figs. on art paper V