

THE OVARIAN TERATOMAS

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SUMMARY

107 cases of Ovarian Teratomas were observed in a total of 634 Ovarian tumours studied. The peak incidence was in the age group 20 to 49 years showing 86 cases. Most common teratoma was the Benign Cystic Teratoma with 102 cases; 4 cases were malignant teratomas and 1 case was a Struma Ovarii. 97 cases were unilateral. Main presenting features were mass or distention of abdomen with or without other symptoms mainly pain and irregular bleeding per vaginum.

INTRODUCTION

The Ovarian Teratomas are common ovarian tumours encountered in Gynaecological and Pathology practice. This study aims to delineate the various types of Ovarian Teratomas seen, the respective incidence of each tumour, the incidence of these teratomas with regards to other ovarian tumours and the various clinical presentations seen.

MATERIALS AND METHODS

634 ovarian tumours were studied between the years 1980 to mid 1994 at

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the Department of Pathology, Goa Medical College. Out of these 107 were Ovarian Teratomas. In each case various clinical criteria like age, signs and symptoms, menstrual irregularities and signs of metastasis in malignant tumours were noted. A careful Gross examination was done of each tumour and bits put from representative areas and studied microscopically. The W.H.O. Classification of Ovarian tumours was used to classify the tumours.

RESULTS

107 Ovarian teratomas were found in a total of 634 ovarian tumours studied

Table I

Table showing histologic type of teratoma, Age, Symptoms and signs, certain gross pathological features and percentage distribution

Histologic Type of Tumour	Age range in years	Main Symptoms & Signs	Uni/Bilateral	Solid/Cystic	Total Cases	% of Teratomas	% of all Ovarian tumours (Total 634)
1. Benign Cystic Teratoma	1-64	Mass, Pain Bleeding	92 U, 10 B	102 SC	102	95.33%	16.09%
2. Malignant Teratomas	22-40	Mass	4 U	4 S	4	3.74%	0.63%
3. Specialised Teratomas i. e. Struma ovarii	65	Mass	1 US	1 S	1	0.93%	0.16%
Total			97 U, 10 B	102 SC, 5 S	107	100%	16.88%

Abbreviations :

U - Unilateral; B - Bilateral; S - Solid; SC - Solid to Cystic

giving an incidence of 16.88%. The peak incidence was from 20 to 49 years showing 86 cases (80.37%). The youngest patient was 1 year old, a case of Benign Cystic Teratoma, whereas the oldest patient was 65 years old and showed Struma Ovarii. Mass in the abdomen either as a single symptom or associated with other symptoms like pain or irregular bleeding per vaginum occurred in 92.52% of cases. In 97 cases (90.65%) the tumour was unilateral whereas 10 cases (9.35%) were bilateral. Gross pathology revealed 95.33% tumours to be solid to cystic while 4.67% tumours were solid. Histological examination revealed 103 (96.26%) to be benign and 4 (3.74%) to be malignant. Histological typing identified 102 cases (95.33%) to be Benign Cystic Teratomas, 4 cases (3.74%) to be malignant teratomas and 1 case (0.93%) was a specialised teratoma in the form of Struma Ovarii (Refer Table I).

DISCUSSION

A detailed Gross and Microscopic examination was done for each of the tumours and the histological features noted.

Benign Cystic Teratoma : Mature teratomas in the form of Benign Cystic Teratomas (Dermoid Cysts) were seen in 102 Cases i.e. 95.33% of Teratomas and 16.09% of total number of ovarian tumours studied. It was thus by far the most commonest type of ovarian teratoma. Similar figures have been reported by Kent and McKay (1960) (17.5%) whereas Prabhkar et al (1989) reported 20.44%. The youngest patient was 1

year old and the oldest patient 64 years. Mass in abdomen with or without pain and menstrual irregularities formed the main symptoms and signs. The largest tumour was 30 x 30 cms in size. 10 tumors were bilateral. On Gross examination all tumours were solid to cystic. On Cut Section they contained pultaceous material, hair and solid portions. On occasion, tooth structures and cartilage, besides other tissues were seen in these protruberances. Microscopically, mature elements from all three germ cell layers were observed. Most commonly found were stratified squamous epithelium, sebaceous glands, hair follicles, gastrointestinal and bronchial epithelium, fat, cartilage, smooth muscle and occasionally tooth and bone (See figures 1 & 2).

Malignant Teratomas : were seen in 4 cases (3.74% of teratomas and 0.63% of total number of ovarian tumours). Verma and Bhatia (1981) reported 0.50% while Prabhakar and Maingi (1989)

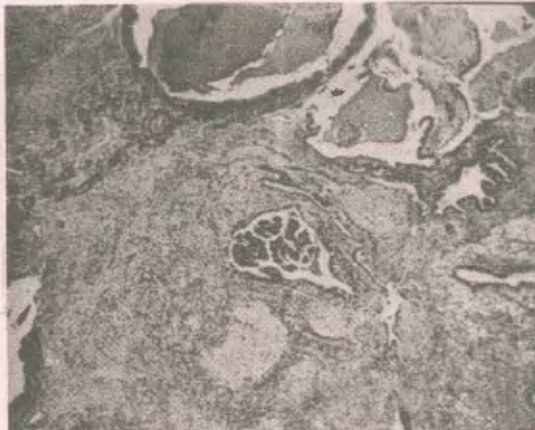


Fig. 1 : Benign Cystic Teratoma, Scanner view micro-photograph, showing stratified squamous epithelium, brain tissue, cartilage, fat and intestinal epithelium (H & E, x 32).

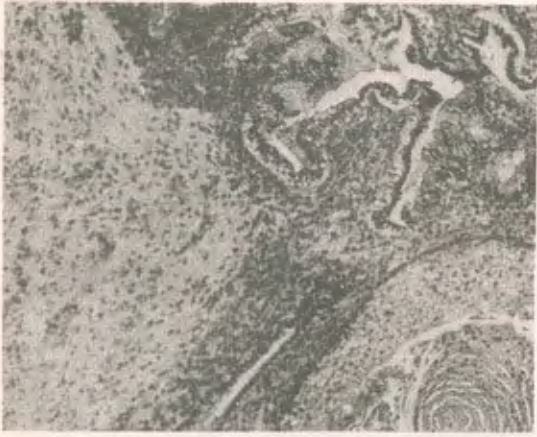


Fig. 2 : Benign Cystic Teratoma, high power view (H & E, x 400).

0.94% of these tumours in their studies. All tumours were unilateral and solid in consistency. Two cases (0.32% of all ovarian tumours) were cases showing malignant change in Dermoids which compared with similar studies of Mehta & Purandare (1964) (0.67%). One was a primary malignant melanoma arising in a teratoma, the other a squamous cell carcinoma arising in a teratoma. The remaining two cases of malignant teratomas were immature teratomas. Both were young patients who presented with mass in abdomen. They were solid tumours, outer surface was bossulated and cut section showed multiple greyish white nodular areas with areas of

haemorrhage and necrosis. Microscopically a spindly sarcomatous stroma with areas of immature cartilage and primitive neural tube was seen. A focus of dysgerminoma was also noted in one of the tumours. One of the tumours had metastasis in the omentum.

Specialised Teratomas : were represented in our study by 1 case of Struma Ovarii (0.93% of teratomas; 0.16% of all ovarian tumours). Gupta et al (1986) reported 0.59% whereas Prabhakar and Maingi (1989) report 0.78%. The patient was a 65 years old female who presented with a mass in abdomen. The thyroid was normal. The tumour was unilateral, solid and on cut section had a honey comb appearance resembling thyroid tissue. Microscopically, colloid filled follicles with compressed ovarian stroma were seen.

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