ATYPICAL GRANULOSA CELL TUMOUR WITH FEATURES SUGGESTIVE OF GYNANDROBLASTOMA

by

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This is a case report of an unusual granulosa cell tumour. It was diagnosed as granulosa cell carcinoma initially but few other sections showed features of arrhenoblastoma. Finally it was diagnosed as Gynandroblastoma. The purpose of this paper is to emphasize the histological variation that can occur in a granulosa cell tumour and difficulties in differentiating mixed ovarian tumour.

Case Report

On 30th April, 1974 a 25 years old married woman was admitted for irregular vaginal bleeding for one month following 5 months amenorrhoea. She had noticed swelling of abdomen in the past 5 months which was gradually growing and which she obviously thought to be pregnant uterus. Her menstrual irregularity was attributed to abortion. She was married for last 7 years and her only child was 4 years old son.

During amenorrhoeic phase repeated toad test showed negative result. Her breasts did show some darkening of areola and nipples but there was no secondary areola formation. Abdominal examination revealed firm mobile mass corresponding to 20 weeks gestation size, slightly tender, foetal parts were not palpable. There was slight ascitis. Vaginal examination revealed a bulky uterus with parous cervix and the lower pole of the tumour was so snugly fitting to the pelvis that at first instance swelling was thought to be uterine.

A provisional diagnosis of granulosa cell tumour was made.

Laparotomy was performed. Left ovary was enlarged solid and highly vascular in appearance. The capsule was intact. Uterus was enlarged to about 10 weeks size and firm Right adnexa were normal. Liver was normal; no omental or peritoneal deposit were found. Straw coloured ascitic fluid about 200 cc was removed and the sample was sent for cytological analysis. Left ovariotomy was performed. The tumour was about 12.5 cm in diameter, highly vascular. On cut section there were yellowish areas but larger greyish necrotic haemorrhagic areas with clear macroscopic appearance of malignancy. As there were no facilities for frozen section and unequivocal macroscopic appearance of malignant tumour was evident and as she also had a child total hysterectomy with removal of other ovary and tube was done. The postoperative period was uneventful and she was discharged on 8th postoperative day. The tumour measured 15 cm. x 10 cm x 7 cm. External surface had a smooth glistening capsule. On cut section a verrigated appearance with areas of necrosis and haemorrhage intermingled with greyish white and greyish yellow areas were seen. Right ovary appeared normal, uterus was 10 cm x 7 cm x 3 cm. Endometrium appeared hypertrophic 0.3 to 0.5 cm. in thickness. The growth pattern was observed microscopically. Fig. (1) shows the granulosa cell tumour pattern diffuse type with formation of typical Call Exner bodies Fig. (2) shows the tumour cells enclosed in dense thecal connective tissue. Fig. (3) shows arrhenoblastic differentiation with tables containing neoplastic cells. Fig. (4) shows endometrium showing cystic glandular hyperplasia, Swiss cheese pattern.

Discussion

When granulosa cell tumour occurs in reproductive age group clinical syndrome is not striking as when it occurs in puberty or postmenopausal age. No change in secondary sex characters would be expected because they have long since been developed. Hyperestrinism may be

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associated with normal menstruation or with periods of amenorrhoea. The term gynandroblastoma was first coined by Meyer and Bitx in 1930 for an ovarian tumour which had morphological features of both granulosa cell tumour and arrhenoblastoma. Of the cases reported in literature so far good percentage have not been accepted partly due to inclusion of granulosa cell tumour which was associated with clinical features suggestive of masculinisation. The total number of all authenticated cases of gynandroblastoma so far is 24 (Novak 1967).

Diagnosis of gynandroblastoma depends solely on histologic examination rather than on clinical or laboratory findings which may not reveal the corresponding size in urinary hormone level. The masculinising effects of the tumour appear to have been generally dominant only when there is Leydig cells. But in some cases oestrogen manifestation as excessive vaginal bleeding has been noted. Age of the patient in reported cases has ranged from 15 to 70 years. None of the gynandroblastoma except one of Hobb (1949) so far manifested evidences of malignant behaviour nor did any appeared to be histologically malignant. Our case however showed histological evidence of malignancy and degenerated malignant cells were isolated in ascitic fluid. Though conservative surgery has been advocated in benign tumour specially in younger group, radical surgery was performed because of malignant nature of tumour. Postoperative cytotoxic drug was not given as the patient did not consent for the same.

Follow-up—she remained well and free of symptoms till 1976, January and had more of psychological disturbances as she was deprived of further childbearing. She then developed metastases in spine and paraplegia and pathological fractures due to metastases in long bones and ultimately died of pulmonary metastases in July, 1976.

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