MIXED MESODERMAL TUMOUR OF THE OVARY†

by

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Mixed mesodermal tumour of the female genital tract, presenting the histological picture of carcinoma and Sarcoma in combination is uncommon, and the cases reported did arise almost exclusively from the mucosa of the body of the uterus, cervix and vagina. The extreme rarity of such a combination tumour arising from the ovary is very much worth reporting.

Case Report

Mrs. D. G. 34 years, para 3 + 0, a Bengali, was admitted in S.S.K.M. Hospital on 30-12-74 with (i) Gradual enlargement of the abdomen for 2 months, (ii) loss of appetite, anorexia, with progressive weakness for one month and

(iii) difficulty in breathing for last 15 days.

There was history of acute pain in the left side of the lower abdomen 2 months back, which was relieved by antispasmodics.

Menstrual History: Menarche 13 years, 28 ± 2 days, 4-5 days, flow-average, pain-nil; last menstrual period 28th Dec. 1974.

Obstetric History: Para 3 + 0, 2 living, last child birth 8 years ago; patient used conventional methods of contraception.

Examination on Admission

General Condition—moderate, pulse 110 pm, respiration 20 pm, BP 120/86 mm of Hg—, Anaemia—moderate.

Systemic Examination: Heart and Lungs—nothing abnormal detected. Abdomen was enlarged, tense, cystic with evidence of free fluid, fluid thrill ++, shifting dullness ++, on deep palpation an irregular firm mass was palpable on the left side.

On Vaginal Examination: The uterus was normal in size, mobile, pushed in front; an irregular mass was felt through the anterior and left fornix, separate from the uterus.

Provisional diagnosis was, Malignant ovarian tumour.

Special Investigations: Blood Hb-9 Gm%, WBC-5800/Cmm, neutro 70% lympho-20%, mono-3%, eosino-7%, Blood Sugar—fasting 90 mgm%, post prandial 120 mgm%, blood Urea—30 mgm%, bleeding time and coagulation time normal.

Urine: nothing abnormal detected.

X-Ray. Chest—Clear with no evidence of metastases. X-Ray of lower abdomen—Evidence of free fluid in the pelvis with soft tissue haziness. E.C.G. Within normal limits.

Abdominal paracentesis was done on 5-1-75 to relieve her of the progressive respiratory distress. 1000 cc haemorrhagic fluid was drained. The ascitic fluid on examination showed sugar-143 mgm%, protein 841 mgm%, chloride-351 mgm%. Fair degree of anisocytosis and nuclear hyperchromasia was present—strongly suggestive of malignancy.

Pre-operative 600 cc Group-B, Rh positive blood was transfused.

Laparotomy was done under gas and oxygen anaesthesia on 10-1-75. On opening the abdomen by a right paramedian infraumbilical incision, the peritoneal cavity was found filled with haemorrhagic fluid. A cauliflower like friable growth was found arising from the left ovary, involving the uterus, adjoining small intestines and extending upto the left pelvic wall. The tube and ovary on the right side formed a mass adherant to the uterus.

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A total hysterectomy with bilateral salpingo-oophorectomy was done and the abdomen was closed in layers.

Chemotherapy was started on the 5th post-operative day, 200 mgm. of **Endoxan** was given I.V. on alternate days, a total dose of 1000 mgm. in combination with **Metamycin** 10 mgm. I.V. bi-weekly, a total dose of 20 mgm. This was followed by **Oncovin** (Vinca Alkaloids) 0.01 mgm per Kg. body weight I.V. 0.5 to 1 mgm was injected weekly and a total dose of 5 mgm. was given.

Patient is being followed up in collaboration with the Radio-therapist and is doing well, till date with no recurrances.

Pathology Report: Macroscopic—Grossly the **left ovary** was completely replaced by the tumour tissue, white homogenous in appearance, measuring 12 cms x 22 cms x 9 cms. The tumour was partly well defined friable and necrotic in places. The cut section showed the tumour was comprised of light yellow homogenous material with faint lobulations. The **right ovary** was enlarged being partly replaced by three small distinct tumour masses variable in size from 1/4th Cmm to 1 Cmm in diameter. The overal appearance was almost the same as the left ovary (Fig. 1) The uterus and fallopion tubes did not show any gross pathology. Multiple sections were taken both from the tumour masses and uterus, cervix and tubes and sent for histopathological examination.

Microscopic: The ovarian tumours showed various types of carcinomatous elements in association with definite sarcomatous areas and mixtures of variegated appearance of carcinomatous cellular element with sarcomatous stroma (Fig. 2). At certain areas there was evidence of endometroid carcinoma (Fig. 3) in association with endometrial glands and stroma in other areas (Fig. 4). The cells of the endometroid carcinoma, showed marked papillary pattern with extracellular mucin (Fig. 5). The sarcomatous areas also revealed heterogenous elements as fatty tissue with definite sarcomatous changes (Fig. 6), and giant cells with well defined nuclear structure and prominent nucleoli. The cytoplasm was granular with well defined cellular out line. The appearance was very suggestive of poorly differentiated muscle cells having absence of cross striations (Fig. 7). The histological evidences were same as found in mixed mesodermal tumour arising from the body of the uterus, and the diagnosis was thus established.

Comments

The evidence of malignant neoplasm was identical in both the ovarian tumours. That the tumours were endometrial in origin was evidenced by the presence of endometrial carcinoma. Our interpretation of the neoplasms being fundamentally embryonal mullarian malignant tumour was evidenced by the variable degree of differentiation towards endometrial stroma (sarcoma) and endometrial glands (carcinoma). In both the specimens there were discrete sarcomatous areas with varying types of carcinoma and areas of variegated mixed cellular elements. The development of carcinoma from sarcoma was thus demonstrated, confirming the tumours as true mullarian carcinosarcoma.

The above observations strengthened the contention that the endometrial stroma and gland are of common origin and sensitive to the same hormones and carcinogenic stimuluses.

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See Figs. on Art Paper XVI-XVII