MALIGNANT MIXED MULLERIAN TUMOUR OF THE FALLOPIAN TUBE

by

S. AGGARWAL,* M.D., M.A.M.S.

P. K. DEVI,** M.S., F.R.C.S., F.A.M.S.

and

M. AIKAT,*** M.D., Ph.D., M.A.M.S.

Primary malignant tumours of the fallopian tube are still considered pathologic rarities. Carcinoma is by far the most common of primary malignancies. comprising approximately 95% of t he total group. Mixed mesodermal tumours (including carcino-sarcoma), leiomyosarcomas (primary or secondary), hydatidiform mole, choriocarcinoma and lymphoma make up the remaining 5%.

Only 14 cases of this bizarre lesion have been reported as arising primarily in the tube (Jane *et al*, 1973). The problem of accurate documentation of incidence is compounded by the confusing terminology applied to these lesions. McFarland noted 119 synonyms for malignant mixed mullerian tumour in literature, the commonest being "Carcino-Sarcoma". "Mixed mesodermal tumour" and "Sarcoma batryoides". Israel (1964), Corscaden (1962) and others have stressed the importance of reporting every primary malignant tumour of the uterine tube. The more unusual mullerian tumour is certainly worth reporting.

*Registrar, Obst. & Gynaecology

**Prof. & Head of the Department of Obst. & Gynaecology

***Associate Prof. Pathology Department.

Post Graduate Institute of Medical Education & Research, Chandigarh.

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Judging from reported cases. the vaginal tumours, while rare, actually form the most frequent type of malignant mixed mullerian tumour, while tubal tumours are the least frequent (4 per cent). Only after recalling the embryology of the parts concerned does this seemingly diverse group of neoplams become understandable and unified.

The histogenosis of mixed mullerian tumours is controversial. Some authors believe that these tumour originate in the tubal stroma (McQueeney, 1964), while others suggest that they arise in foci of endometriosis (William and Woodruff, 1963). A few mixed mullerian tumours ot the ovary have been described as originating in foci of endometriosis. but such a neoplasm has not been described in the fallopian tube. We feel that the present evidence supports the concept that this tumour arises from mullerian stroma of the fallopian tube, on the basis that the mullerian stroma is a multipotent tissue which is capable of differentiating into variety of patterns upon an unknown stimulus, it is reasonable to observe the mixed type of mullerian tumour along the organs where the mullerian stroma usually exists, namely the overies, tubes, uterus and vagina.

No clinical or diagnostic differences exist between these lesions and primary

carcinoma. The tumours usually produce no clinical symptoms at the early stage and are relatively silent even when they reach a considerable size. Grossly they appear as intraluminal tumours, similar to. although generally more solid in consistency than, primary tubal cancer (Woodruff, 1969). Final diagnosis is, of course, made on the microscopic appearance. These lesions characteristically show anaplastic change in both the stromal and epithelial elements similar to the patterns described for mixed tumours of endometrium. The carcinomatous element is limited to those types of carcinoma that ordinarily occur in the mullerian system. The sarcomatous portion may show areas of chondrosarcoma, rhabdomyosarcoma, osteosarcoma or liposarcoma in addition to types of sarcoma ordinarily described from mullerian tissue. Both components originate from the multipotent mesoderm of the mullerian system. The route of metastasis is similar to that of carcinoma of the uterine tubes. The metastasis may involve the peritoneum, large intestine, mesentery, bone, lung, ovary. other Fallopian tube, liver, periaortic lymph nodes and lumbosacral lymph nodes (Woodruff 1969). The metastatic lesions may contain either stromal or epithelial elements or both. Therapy is primarily surgical. Adjunctive irradiation and chemotherapy. although probably of minimum value, may be employed in cases with extensive diseases.

CASE REPORT

This is the fifteenth case of malignant mixed mullerian tumour of the fallopian tube. S.D., 50 years old Indian housewife was admitted on 28th January 1974 in Post Graduate Institute of Medical Education & Research, Chandigarh with chief complaints of excessive foul-smelling discharge per vaginam for 5 months, a rapidly increasing mass in the lower abdomen for the last 2 months and dull non-radiating pain over the mass since the same duration and fever off and on for 15 days. There was no history of loss of weight or appetite, urinary or bowel symptoms and irregular bleeding per vaginam.

She was gravida 1 para 1, last child birth was 27 years back. Her L.M.P. occurred 5 months prior to admission with history of having had regular periods before. The past history was noncontributory.

Examination: her general condition was fair. She was moderately anaemic. Her pulse rate was 102/mt with good volume. Her temperature was 37°C and blood Pressure 130/80 mm of Hg. There was no lymphadenopathy. Cardiovascular system, respiratory system and central nervous systems were normal.

Examination of abdomen showed a firm to hard, smooth, fixed mass arising out of the pelvis, slightly tender, deviated more to the right side and extending upto the umbilicus. There was no free fluid. No other mass was palpable. During pelvic examination uterus was not felt separate from the firm mass which was occupying the whole pelvis. Cervix was pushed behind the symphysis pubis and was healthy. No nodules were felt in pouch of Douglas. Utero cervical length was 3". The histology of endometrial curettage showed no pathological change. Cervical cytology was normal. Her blood examination showed, haemoglobin—8.5 gm% P.C.V. 26 mg%, N.B.C. count—9700/cmm. D-L.C. P 72, l 28, and blood urea—20 mg%.

Chest film was negative. Excretory urograms showed a pelvic mass compressing the bladder, mild hydroureter and hydronephrosis right side.

During exploratory laparotomy on 2-1-1972 a mass 8" x 6" in size was seen arising from the right tube. This was adherent to the omentum and peritoneum. Right ovary was not visualised. Uterus was found embedded in the mass. Tumour was enucleated and the capsule was stitched. Biopsy was taken from right tube. The immediate postoperative period was uneventful. External cobalt radiation was started but could not be continued because of extreme radiation sickness. Patient left hospital against medical advice on 20th postoperative day and expired 2 months later at home.

PATHOLOGY

Gross 1. Tubal Biopsy 3 x 2 x 2 cm. irregular piece of soft unfixed tissue.

Sr. No.	Date	Age	Histology	Metastasis	Remarks
5.	1940	54	Carcinosarcoma.	Opposite tube.	Resembled hydrosalpinx
6.	1941	60	Carcinosarcoma.	Opposite tube.	—
7.	1950	58	Carcinosarcoma.	Peritoneum, multiple nodular.	Adherent to sigmoid.
8.	1959	65	Carcinosarcoma-adeno-carcinoma spindle-cell sarcoma, cartilage.	Homolateral ovary.	—
9.	1961	58	Mixed mesodermal tumour, malignant.	Peritoneum with secondary small—bowel obstruction.	Had postoperative X-ray: died in 15 months.
10.	1963	35	Undifferentiated and spindle-cell carcino-sarcoma with cartilage islands.	Pelvic, periaortic, —lumbosacral, lung, and liver.	Died in 4.5 years
11.	1963	69	Adenocarcinoma, plemorphic sarcoma with cartilage and striated muscle.	Peritoneum with secondary large bowel obstruction.	Died in 6 months.
12.	1963	45	Carcinosarcoma.	—	Bilateral involvement died with metastases 6.5 months after surgery
13.	1970	64	Adenocarcinoma, pleomorphic spindle-cell, sarcoma and malig-nant cartilage.	—	Surgery and radiation therapy; died 8 months after surgery; no autopsy.
14.	1971	57	Adenocarcinoma pleomorphic and spindle cell sarcoma with malignant cartilage.	No evidence of metastasis 12 months after surgery.	Patient well and free of metastasis 12 months post-operatively.
*	1974	50	Carcinosarcoma.	Wide intrapelvic involvement.	Expired 2 months after surgery, no autopsy.

Summary

An additional case of malignant mixed mullerian tumour primary in the tube is reported bringing the total number of known reported cases to 15. These are summarised in the tabuler form (Table I). Lack of clinical manifestations of malignant mixed mullerian tumours arising in the uterine tube usually delays surgical intervention. Mean age of the patients at the time of operation was 52 years, and mean survival after diagnosis was 7 months. Present case gives further support to the tumour's derivation from a pluripotent mullerian stroma.

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See Figs. on Art Paper X