CARCINO-SARCOMA OF THE UTERUS WITH A COLLISION TUMOUR

(A Case Report)

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Carcinosarcoma of the uterus is not only a rare condition but one that is highly malignant and lethal. It is a condition in which both carcinomatous and sarcomatous changes occur in a common base tissue. This corresponds in Ober and Tovell's classification to the homologous type of tumour arising from the endometrial stroma without the presence of dysontogenetic elements. Novak classified sarcomas into "composition, combination and collision tumours," but states that the distinction beween composition and combination is impossible. However, Chabon, quoting Meyers, differentiates composition tumours as true teratomas with malignant transformation of both epithelial and mesodermal tissue, and combination tumours as those in which a sarcomatous change has taken place in the stroma of a carcinoma or reverse. A collision tumour every one agrees is one in which there is coalescence of independent carcinomatus and sarcomatous tumours.

Piquand quoted by Charache gave the incidence of carcinosarcoma as 1 in every 7500 malignant tumours of the body of the uterus, while Sternberg *et al* found it to be .08%. Wolfe and Pedowitz have, in 1958, reported on a series of cases, and Aaro, Symmonds and Dockerty have reviewed in 1966, 69 cases of uterine sarcoma of which 26 cases were carcinosarcoma. Bartsich *et al* have reviewed recently 32 cases and give an incidence of 2.04% of all malignant uterine neoplasms and 25.6% of all uterine sarcomas.

Most of the patients reported in literature were postmenopausal and over the age of 50 years. Charache and Aaro *et al* noted that several had had roentgen or radium therapy to induce menopause for benign conditions like dysfunctional uterine bleeding, while Carpas and Speer reported a case of carcinosarcoma of the endometrium after oestrogen therapy for 11 years. The patients present with vaginal bleeding which is irregular in nature and a vaginal discharge which is often purulent. The bleeding originates in the polypoid

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growths which arise from the anterior or the posterior wall and lie in the cervical canal and vagina. They are necrotic, haemorrhagic and bleed profusely during any manipulation. As the growth extends it fills the pelvis giving rise to rectal and urinary complaints. Metastases are haematogenous in origin, and can be either pelvic, extending to the parametrium, bladder and rectum, or systemic involving the lungs, liver and peritoneum. They are either pure carcinoma or pure sarcoma — rarely are they mixed. Metastases to the lymph glands are not usually encountered.

Case Report

R. P., a 51-year-old woman, was admitted on 30-1-68 with a history of bleeding since that afternoon and a white discharge with spotting off and on for 4 years. Her past history was insignificant. The patient had had a pessary introduced 4 years ago for prolapse of the uterus.

Menstrual history: The patient had menopause 12 years ago. Her cycles previous to the menopause were normal and regular.

Obstetric history: She had had 9 full term normal deliveries. The last delivery was 14 years ago.

General examination revealed a poorly nourished, anaemic woman with no abnormalities in her cardiovascular or respiratory systems. Pulse 88/min. Blood pressure 150/90 mm. of Hg.

Abdominal examination revealed no abnormality. No tumours were felt, and the liver was not palpable.

Vaginal examination showed an open os, with some soft growth in the cervical canal. The growth arose from the uterine cavity and was friable. The uterus was bulky and about the size of an 8 weeks' pregnancy. The fornices were clear. Small bits of tissue were detached during vaginal examination which provoked bleeding.

Investigations

Haemoglobin, 10 gms.%; urine, normal; Blood urea, 36 mg.%; Blood sugar, 81 mg.%; and x-ray chest, normal.

Management

Under general anaesthesia, a vaginal examination was done on 31-1-68. Some friable material was removed with a sponge holder and sent for biopsy. As it had the appearance of brain-like material and looked suspicious like a degenerating malignant fibroid, a curettage was not attempted.

On 8-2-68 the patient was re-examined. The uterus was of a 6 weeks' pregnancy size and a large lobulated, friable mass was found lying in the vagina with a pedicle coming through the cervix. The fornices were clear. The biopsy report was "anaplastic tumour". On 12-2-68 a total hysterectomy with bilateral salpingo-oophorectomy and removal of a large cuff of vagina was undertaken after first removing the pedunculated growth from the cervical canal. The liver was palpated for secondaries and none were found. The post-operative period was uneventful and it was proposed to irradiate her with 4500 r in divided doses over 20 sittings. Patient had 12 sittings following which she developed vomiting and diarrhoea and hence treatment was discontinued and she got discharged.

Specimen

Macroscopic

The uterus was slightly enlarged but still retained its normal shape. The widened endometrial cavity was entirely filled with a growth which had perforated through the utero-cervical junction on the right side. It did not protrude through the cervical canal. The growth appeared as a sessile, lobulated, polypoidal mass arising from the anterior and lateral walls of the corpus uteri. The superficial portion was friable and necrotic in patches and the portion observed through the utero-cervical perforation appeared as a tongue-like haemorrhagic mass. The cut surfaces of the growth showed a correspondingly similar appearance. The myometrium was infiltrated by the growth and was thinned out in its entirety. At the site of the perforation in the utero-cervical junction, a small, cir-

cumscribed, soft, fleshy mass was seen arising from the uterine wall. This tumour was distinguishable from the main growth. The cut surface showed a variegated appearance suggestive of a leiomyoma. The cervix, adnexae and vaginal flap showed normal appearances. The friable material separate from the mass was dark brown, brittle, and appeared to be mainly necrotic material and blood clot.

Microscopic

Sections taken from different portions of the uterine growth were of variable appearance. The endometrium was ulcerated and the glands showed evidence of an adenocarcinomatous proliferation infiltrating the stroma and the myometrium. At places the cells lining the acini showed squamous metaplasia. The stroma comprised of irregularly proliferated plump, spindle-shaped cells with numerous mitotic figures and tumour giant cells (stromal sarcoma). Sections from the circumscribed tumour at the utero-cervical junction showed irregularly proliferating myometrial cells which were variable in size and shape and showed marked mitosis and numerous tumour giant cells. These leiomyosarcomatous cells were also observed adjacent to the endometrial tumour and intermingling with it. The tumour showed patchy areas of necrosis and haemorrhage. Tumour emboli were seen in the blood vessels and lymphatics. The parametrium also showed infiltration by the tumour cells. The cervix, adnexae and vaginal flap showed no evidence of neoplastic infiltration but chronic cervicitis and mild salpingitis were observed. Sections from the material separated from the uterus showed mainly haemorrhage, necrotic cells and groups of undifferentiated neoplastic cells. The ovaries showed stromal hyperplasia.

Diagnosis—Carcinosarcoma of the uterus with a collision leiomyosarcoma.

Discussion

Carcinosarcoma is a very unusual tumour and one which is not often encountered. When it occurs in combination with a collision tumour it is rarer still. The case presented corresponds with the typical book picture clinically and pathologically. The patient was postmenopausal and over 50 years of age and had irregular vaginal bleeding. The fragile necrotic growth was polypoidal in nature and protruded out of the cervical canal. She did not, however, give any history of receiving irradiation previously as did several cases reported by Bartsich *et al*, nor of having had any oestrogen therapy. However, one interesting finding was that the ovary showed stromal hyperplasia and the question arises as to whether ovarian stromal hyperplasia could be responsible for any hormonal aetiology of the malignant growth.

Bartsich *et al* state that the diagnosis is not often made by diagnostic curettage or biopsies. Only in 31.3% was a correct diagnosis established. In the rest, the reports were either adenocarcinoma or an undifferentiated carcinoma or an undifferentiated carcinoma of unknown primary site. In this case the report was "anaplastic tissue".

The prognosis in these tumours is very poor and the best 5 year salvage according to Novak has been approximately 26 to 28%, while Bartsich in his review of 32 cases records no 5 year survival in spite of any line of treatment. Symmonds and Dockerty have recorded one case with a 9½ year survival where myometrial invasion was minimal. The treatment usually is a total hysterectomy with bilateral salpingo-oophorectomy, followed by irradiation, for though sarcoma is radio-resistant the carcinomatous metastases which are in the region of 75-80% (Novak)

may respond. Aaro, Symmonds and Dockerty studied a series and found post-operative irradiation had some significant palliation. One patient is reported to have lived for 6½ years after irradiation, with tumour regression. However, the above authors also stated that the prognosis cannot be correlated with the histological grade of malignancy. The follow-up of this patient should prove interesting.

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