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Case Reports

Carcinosarcoma of Uterus – A highly Aggressive Tumour – A Case Report

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Abstract:

Carcinosarcoma (CS) of uterus is a relatively rare tumour and accounts for less than 1 percent of malignant growth of the female genital tract. This tumour contains both malignant epithelial component and malignant stromal component. So, it is also known as malignant mixed mullerian tumours (MMMTS). Carcinosarcoma usually arise from endometrium and myometrium and rarely from cervix, ovary. The clinical presentation is mostly postmenopausal bleeding but enlarging pelvic mass, pelvic pain, vaginal discharge or polypoidal mass protruding through the cervical os are also frequently present. The risk factors include obesity, exogenous estrogen, nulliparity, exposure to radiation & temoxifen. Histological evaluation by endometrial biopsy will establish the diagnosis in most cases. Carcinosarcoma is aggressive type of tumour; extra-uterine spread is very common and generally carries a poor prognosis. The prognosis depends on the extent of the tumour at the time of primary surgery. This case report describes a rare type of presentation of the tumour which arose from the body & cervix of uterus and presented with a polypoidal mass prolapsed into the vagina. The case was properly diagnosed & managed by surgery and postoperative adjuvant radiotherapy.

Key words: *Carcinosarcoma, Sarcoma, MMTS.*

Introduction:

Carcinosarcoma(CS) of uterus account for 40% to 45% of all uterine sarcomas, 2% to 6% of all uterine malignancies and less than 1% of all malignant growth of female genital tract.[1]

Carsinosarcoma(cs) is also known as mixed mullerian sarcoma or malignant mixed mullerian tumours(MMMTS).[2] These tumours contain both carcinomatous (malignant epithelial) and sarcomatous (malignant stromal) components .[2] The primary site of origin is in the endometrium and myometrium but can also develop in the cervix and ovary.[1] These tumours occur principally in older women, is unusual before 40 years of age and begins to increase steadily thereafter, the median age of patients being 62 years.[2,3,4] Most patients present with postmenopausal bleeding. Not infrequently, a large polypoid mass may extend from endometrial cavity protruding through the cervical os. Some patients may present with vaginal discharge, enlarging pelvic mass and pelvic pain.[1] It is more common in black women and the predisposing factors are: exposure to radiation, obesity, exogenous estrogen, nulliparity & exposure to tamoxifen.[1] As in other cases of postmenopausal bleeding, histologic evaluation by endometrial biopsy or curettage is mandatory & will establish the diagnosis.

Histologically the epithelial component of the tumour is usually endometroid in type & the malignant stromal component has features that are unique to uterine tissue(homologous type) or tissue not normally found in the uterus, like bone, cartilage(heterologous). These tumours are aggrasive and extrauterine spread is

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common compared to endometrial carcinoma.[2] Treatment of choice is total abdominal hysterectomy with bilateral salphingoophorectomy and pelvic and paraaortic lymphnode dissection followed by adjuvant radiotherapy and/or chemotherapy.[3,5] In general these tumours carry a poor prognosis, about 53% cases have recurrence & overall, the 5 years survival rate is 20%-30%.[1,5,6]

Case Report:

Mrs Shamsunnahar, 50 years, a housewife of middle class family from Sirajgong was admitted in the Gynae Oncology department of National Institute of Cancer Research & Hospital (NICRH) with the complaints of continuous per-vaginal bleeding for 5 months with occasional excessive bleeding, lower abdominal pain for 5 months and something coming down per-vagina for last one month. She was a mother of five children, age of last child was 22 years. Five months back her menstrual cycle was regular with average flow and duration. But for last 5 months she developed continuous per-vaginal bleeding for which she was treated by oral progesterone by local doctors. Despite treatment, her condition became worse. Then she was referred to GOPD in NICRH. On examination she was found to be anaemic, hypertensive with slight tenderness in lower abdomen. Per-vaginal examination revealed an exophytic fleshy irregular growth protruding through cervical os. Uterus was bulky, fornices were free and parametrium on both sides were free. Ultrasound of whole abdomen revealed that the uterus was anteverted, bulky in size with an irregular mass in cervix and anterior part of uterus but tubo-ovarian area was normal. Cul-de-sac was clear. She underwent a biopsy of the polypoidal mass which revealed stromal sarcoma and the differential diagnosis was malignant mixed mullerian tumour. She was admitted in NICRH for definitive treatment. After admission a thorough physical examination was done. She was severely anaemic and hypertensive. Per abdominal examination revealed the size of the uterus to be of 16 weeks pregnancy size. On pervaginal examination the growth protruded through the introitus, the whole vagina was full of growth and per rectally the growth could be felt through the anterior rectal wall. The growth had rapidly increased in size in last one month.

The patient was treated preoperatively with transfusion of seven units of fresh whole blood, antibiotics, tranexemic acid and epsilon aminocaproic acid for control of active bleeding. All pre-operative investigations were done. Peroperatively it was found that uterus was 16 week pregnancy size, there were engorged vessels over the surface of uterus, and cervix was also broad. The whole pelvis was occupied by the uterus and its contained mass.

Both the ovaries were healthy. Thorough peritoneal washing was given and it was collected and sent for cytological examination. Liver, undersurface of diaphragm, gut and omentum were free from adhesion or any metastatic lesion and pelvic and paraaortic lymph nodes were not enlarged. Total abdominal hysterectomy with bilateral salpingo oophorectomy was done with considerable difficultly. After removal of uterus, it was bisected and found that a large

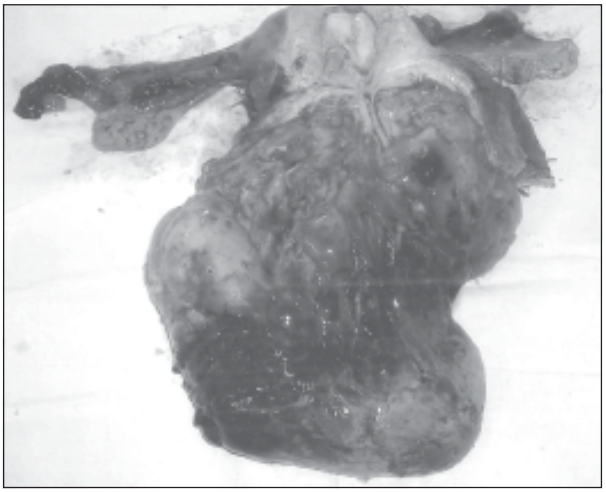

Fig.-1: *Hysterectomy Specimen showing Carcinosarcoma of Uterus & Cervix with polypoidal mass which prolapsed into the vagina.*

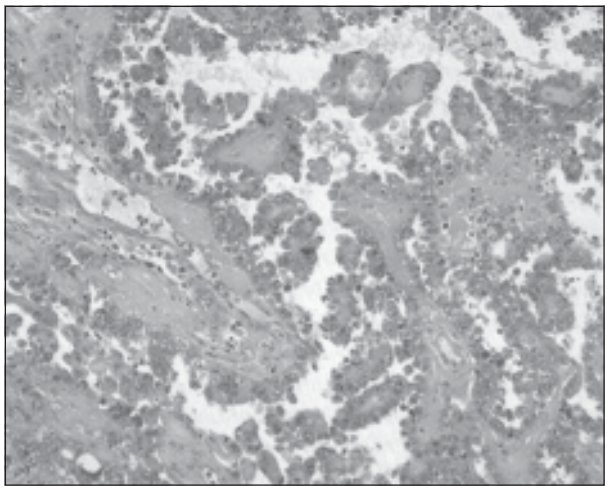

Fig.-2: *Histologic picture of Carcinosarcoma of the Uterus & Cervix.*

polypoidal growth arising from the fundus of uterus up to the cervix and was protruding through the cervical os. The whole specimen was sent for histopathology and the report showed features of a carcinosarcoma, composed of and admixture of carcinomatous and sarcoma like elements. Sections of uterine wall showed focus of the tumour invasion. The ovaries and fallopian tubes contained foci of the tumour.

Postoperatively the patient was treated with 4 units of fresh whole blood, antibiotics, analgesic. Postoperatively she developed wound infection from which she recovered by regular dressing. The patient was referred to radiation oncology department and decision for adjuvant radiotherapy was taken. Accordingly the patient received 5,000 C.GY external beam radiotherapy (EBRT) which was given in 25 fractionated doses. The patient came for follow up in gynae oncology department for six months after completion of radiotherapy and at that time she was disease free which was evidenced by general examination, local examination and investigations.

Discussion:

Sarcoma arising within the uterus is relatively rare. Of the sarcomas, the most common, in order of decreasing incidence, are carsinosarcoma, leiomyosarcoma; endometrial stromal sarcoma and adenosarcoma.[2] Cervix and vagina are rare sites of origin of such tumour. This case report describes this rare type of carsinosarcoma arising from both body and cervix of uterus of a 50 years old lady who presented with a neoplastic mass prolapsed into the vagina.

Carcinosarcoma of the cervix is very rare. It was reported that carcinosarcoma developed from the cervical remnant of a 30 years old lady following subtotal hysterectomy.[4]

Sultana et al reported a case of carcinosarcoma of the endometrium and cervix of a young adolescent girl of 17years.[7] Of the 1452, uterine sarcomas in Harlows study, 86% were classified as carcinosarcoma or leomyosacama[8]. Sherman reporting on SEER (Surveillance, Epidemiology and End Results) data from 1992-1998 found that 53% of all sarcomas were carcinosarcoma.[9]

Another case was reported in a 71 years old woman where carcinosarcoma of the endometrium was associated with non gestational choriocarcinoma.[10] Mostly carcinosarcoma occur in post menopausal women but this patient was a menstruating women.

Given the fact that uterine carcinosarcoma are rare, little is known about the risk factors favouring development of these tumours. There is some evidence that exposure to radiation may increase risk. A history of pelvic irradiation is noted in 5-10% of patients with carcinosarcoma but in this case no risk factor was found.

Meredium and colleagues reported on 1208 women with uterine malignancies and identified 30 who had a history of prior pelvic irradiation.[11] The molecular evidence suggests that carcinosarcoma are biologically related to epithelial endometrial cancers.[2]

In a multicenter case-control study on comparing risk factors associated with endometrial carcinoma & carcinosarcoma it was found that the two tumour types share similar risk factors related to estrogen exposure.[12] It is common for this aggressive tumour to have spread the uterus before the diagnosis is made. Disaia and his associates found in a study that more than 60% had disease outside the uterus at the time of diagnosis[13] but this case presented in early stage of the disease.

This tumour spread by contiguous infiltration of the surrounding tissue and by early lymphatic dissemination. Hematogenous metastases are also common. It is established that the metastatic deposits are usually composed of malignant glands, but sarcomatous elements have been identified in some cases.[4]

Preoperative assessment with tumour marker is not conclusive but in a study it was found that, serum tissue polypeptide antigen (TPA) were elevated in 80% patients with CS.[14] Consultation with a gynecologic oncologist should be considered in cases with a preoperative diagnosis of carcinosarcoma.

The prognosis depends chiefly on the extent of the tumour at the time of primary surgery.[4] Surgical stage is the most important independent prediction for survival.[15] The median survival for all stage is only 18 months.[16]

In general these tumours are thought to carry a poor prognosis. There are virtually no long-term survivors among those whose tumour had extended beyond the uterus at the time of diagnosis.

The management for patients with uterine carcinosarcoma include collection of cytological washings, hysterectomy with bilateral salphingo-oophorectomy, and pelvic and para-aortic node dissection followed by adjuvant radiotherapy or chemotherapy or both. Several retrospective studies have shown radiotherapy or chemotherapy reduces

the risk of recurrence without necessarily improving survival.[2] Chemotherapeutic agents could reduce distant sites of metastasis or could be used in combination with radiation.[2]

In one study it was found that neither radiation therapy nor chemotherapy was effective in prolonging survival.[17] To date ifosfamide, cisplatin and paclitaxel have shown the most promising results in the treatment of carcinosarcoma. This patient received surgical treatment followed by postoperative adjuvant radiotherapy.

Another study reported that among the treated patients with CS 29% were alive at 2 years and in 53% patients the disease recurred.[18] The survival was related to the presence of nodal metastasis, to the depth of myometrial invasion, and to the cervical and adnexal involvement. This patient could be followed up only for six months after completion of radiotherapy. During that time the patient was disease free but unfortunately the patient died six months thereafter due to cardio-respiratory failure due to myocardial infarction.

Conclusion:

Carcinosarcoma of uterus are rare lethal neoplasm. Histologically, they are usually highly anaplastic. Patients with carcinosarcoma have a poorer survival and a higher incidence of pulmonary metastasis and recurrence compared to uterine adenocarcinoma. Surgical stage at the time of diagnosis is the most important independent predictor for survival.

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