

Two Rare Cases Of Malignant Mixed Mullerian Tumor

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Abstract

Malignant mixed mullerian tumors contributes 2 – 5% of all uterine tumors. Here, we describe two cases of malignant mixed Mullerian tumor of the uterus. The tumors were of heterologous type with cartilaginous differentiation. One case showed metastatic tumor deposit in ovary.

INTRODUCTION

Malignant mixed mullerian tumor, also called sarcomatoid carcinoma or carcinosarcoma, is the most common of uterine sarcomas. It contributes 2 – 5% of all uterine tumors. [1, 2]. This tumor is characterized by an admixture of malignant epithelial and stromal elements comprising carcinomatous and sarcomatous neoplastic cells. Here, we report two cases of malignant mixed mullerian tumor of uterus.

CASE HISTORY

Case – 1

A 68 year old female presented with complaints of abdominal pain, abdominal discomfort and weight loss for more than 4 months. Clinical examination of the abdomen revealed an abdominal mass with shifting dullness. CT scan of the abdomen showed an ovarian mass measuring 15 x 10 x 8 cm on the right side.

Total abdominal hysterectomy was done.

Case – 2

A 70 year old female presented with complaints of excessive bleeding per vagina and abdominal pain for past 3 months. Clinical examination revealed palpable mass in the abdomen. USG abdomen revealed an enlarged uterus. Total abdominal hysterectomy was done.

Pathological findings

Case - 1

Grossly, the uterus with cervix was measuring about 11 x 6 x 4 cm [figure 1]. Cut surface showed a friable tumor with gray white infiltrative areas. The right ovary presented with a mass measuring about 14 x 11 x 7 cm. The external surface

was smooth with dilated vessels [figure 2]. The cut surface showed friable gray white areas with necrosis [figure 3]. The left ovary was measuring about 2 x 1.5 x 5 cm. The cut surface was normal with a follicular cyst.

Figure 1

The uterus with cervix was measuring about 11 x 6 x 4 cm

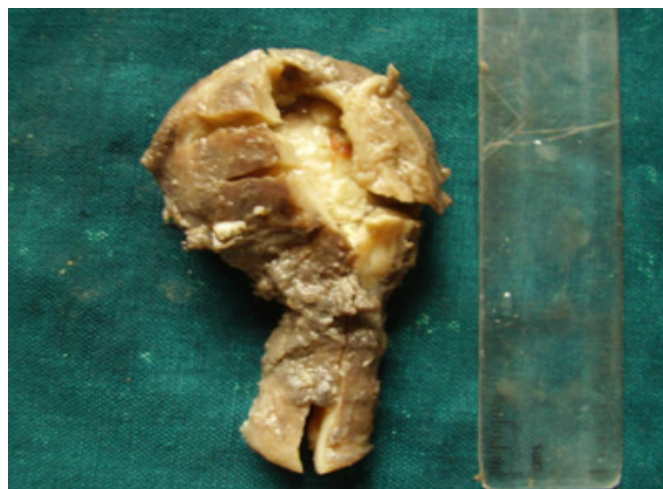


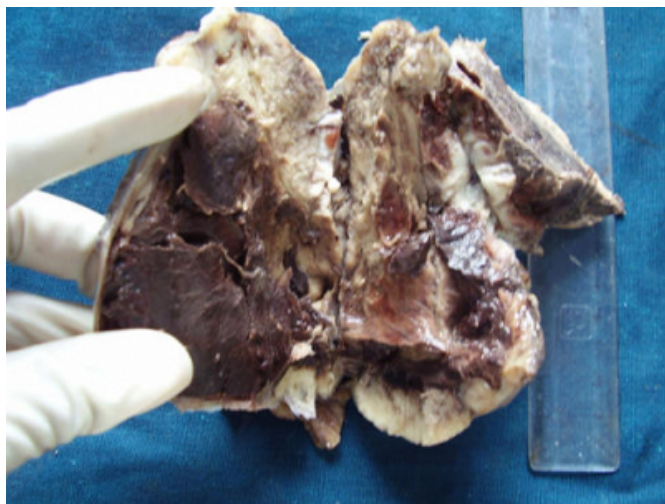
Figure 2

The external surface was smooth with dilated vessels



Figure 3

The cut surface showed friable gray white areas with necrosis



For light microscopy, conventional hematoxylin and eosin stained slides were examined. The tumor in the uterus showed malignant endometrial glands surrounded by malignant sarcomatous stroma composed of fascicles of spindle shaped cells with nuclear pleomorphism [figure 4]. Some bizarre nuclei were seen. Areas of cartilage were seen [figure 5].

Figure 4

The tumor in the uterus showed malignant endometrial glands surrounded by malignant sarcomatous stroma composed of fascicles of spindle shaped cells with nuclear pleomorphism

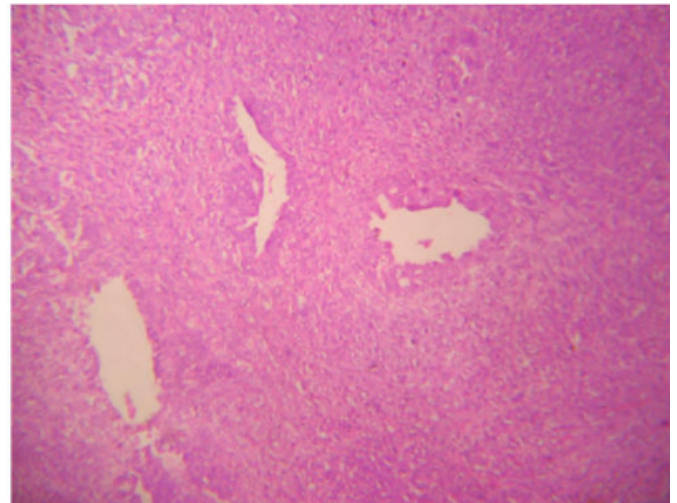
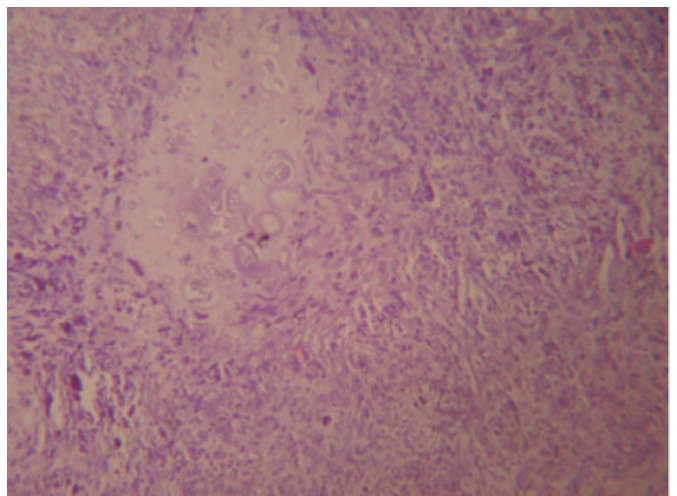


Figure 5

Some bizarre nuclei were seen. Areas of cartilage were seen



The right ovary showed a tumor with similar features along with areas of hemorrhage and necrosis [figure 6]. The left ovary showed normal ovarian parenchyma with a follicular cyst. A diagnosis of malignant mixed mullerian tumor was made.

Figure 6

The right ovary showed a tumor with similar features along with areas of hemorrhage and necrosis

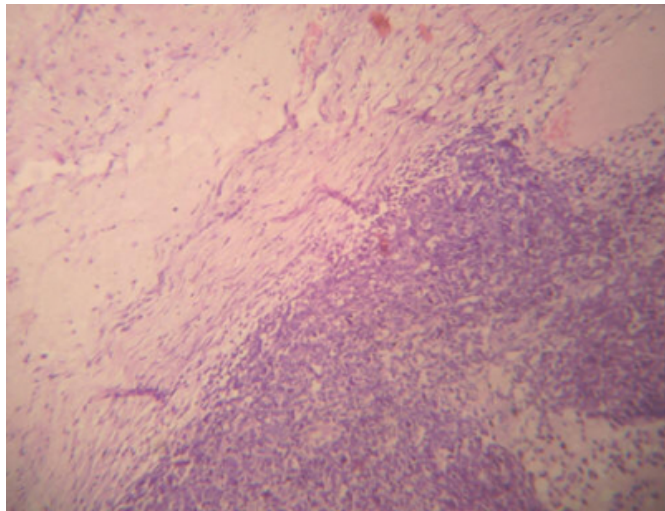
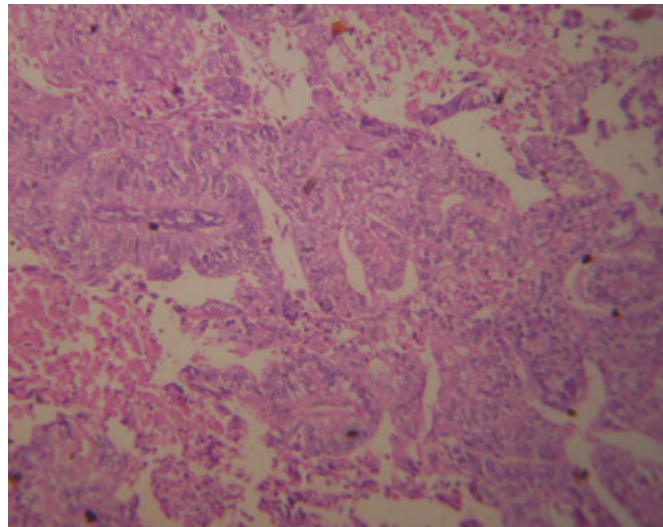


Figure 8

Light microscopy of the sections from the tumor in the uterus showed malignant endometrial glands



Case – 2

Grossly, the uterus with cervix was measuring 10x7x3 cm. The cut surface showed friable gray white growth [figure 7]. Both ovaries were normal.

Figure 7

The uterus with cervix was measuring 10x7x3 cm. The cut surface showed friable gray white growth

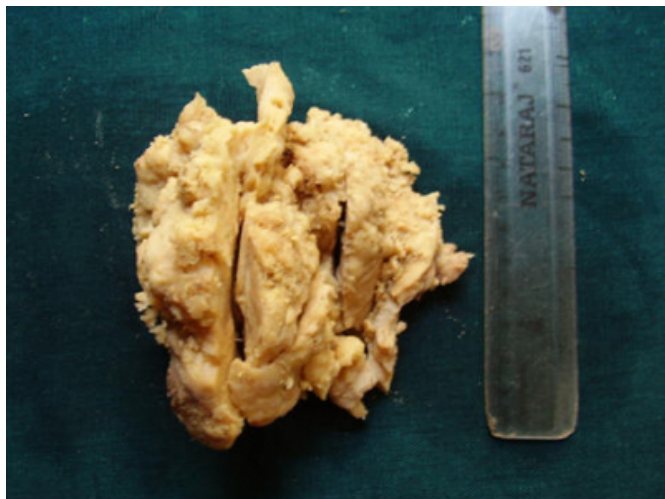
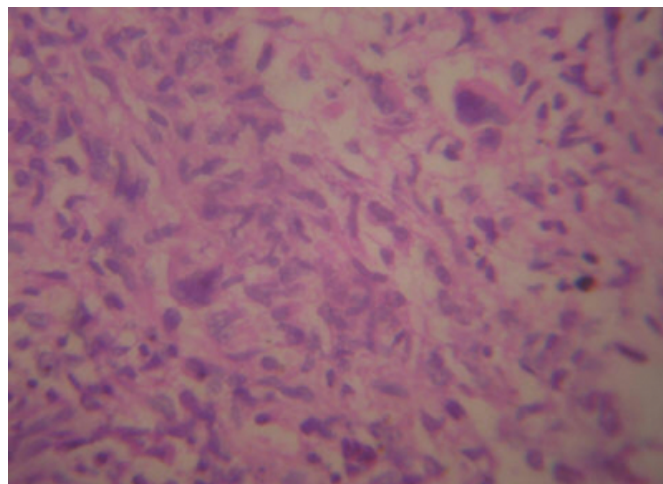


Figure 9

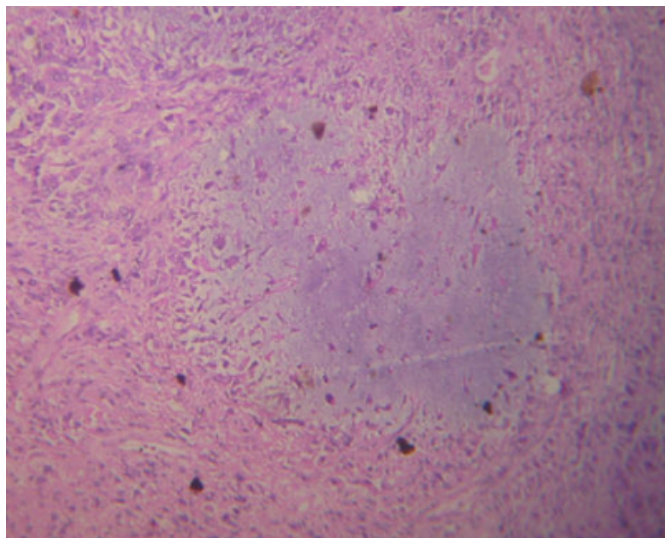
Light microscopy of the sections from the tumor in the uterus showed malignant endometrial glands surrounded by malignant sarcomatous stroma



Light microscopy of the sections from the tumor in the uterus showed malignant endometrial glands [figure 8] surrounded by malignant sarcomatous stroma [figure 9] composed of pleomorphic spindle cells, bizarre cells and multinucleate tumor giant cells. Areas of cartilage were seen [figure 10]. Sections from ovary were normal. A diagnosis of malignant mixed mullerian tumor was made.

Figure 10

Areas of cartilage were seen



DISCUSSION

Malignant Mixed Mullerian Tumours (MMMTs) or carcinosarcomas are composed of malignant epithelial (carcinomatous) and mesodermal (sarcomatous). They can occur in any of the female reproductive organs but most commonly in the uterine corpus due to the embryological development of the uterus.

Most of the patients presented between 5th and 7th decade. But the lowest range of presentation reached upto 15 – 17 years [5]. Vaginal bleeding and uterine enlargement as the commonest symptom and sign respectively [6].

MMMTs are sub-divided into homologous and heterologous tumours. In homologous tumours, both the carcinomatous and sarcomatous elements present are normal components of the Mullerian system. In heterologous tumours, sarcomatous elements that have no benign counterpart in the uterus, such as skeletal muscle, bone and cartilage, are present [3]. Homologous and heterologous MMMTs occur with approximately equal frequency [4].

MMMTs of the uterus arise in the endometrium and the epithelial component usually predominates. Endometroid adenocarcinoma is the most common epithelial component but other variations such as clear cell, mucinous and papillary-serous also occur. The mesodermal component is most commonly undifferentiated sarcoma in homologous tumours and rhabdomyosarcoma in heterologous tumours.

MMMTs are among the most malignant neoplasms known

to occur in the uterus. The average five-year survival was 21%. Seventy to ninety% of tumour-related deaths occurred within 18 months of diagnosis. The relatively large proportion of cases (30-60%) in advanced stages at time of diagnosis reflect the aggressive nature of the tumour [7].

The most important prognostic factor is the extent of the tumour at the time of diagnosis and treatment, the prognosis being very poor when the tumour has extended beyond the uterus [8].

The other important prognostic factor is the depth of myometrial invasion. The clinical stage of the disease and the incidence of lymphatic metastases seem directly related to the depth of myometrial invasion [9].

Some authors have found that patients with tumours containing heterologous components do worse than those whose tumours contained homologous components. However, other authors did not find statistically significant differences in survival between homologous and heterologous tumours. It is controversial whether MMMTs containing cartilage as the only heterologous component have a better prognosis than those with other heterologous components [1,10]. Positive peritoneal washings are associated with a poor prognosis [11].

FIGO staging of MMMTs of the uterus is the same as for endometrial carcinoma. Tumour spread occurs by direct extension to the cervix and vagina followed by other pelvic organs including the bladder and rectum. Lymphatic spread to local and regional lymph nodes appears to occur at an early stage of the disease. Haematogenous spread is also common usually to lung, liver and bone [11].

In summary, we described two rare cases of mixed mullerian tumor of the uterus, heterologous type.

References

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