

Rare Case of Primary Peritoneal Carcinosarcoma

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Introduction

Carcinosarcoma is a rare Mullerian tumour which typically originates from the genital tract in post-menopausal Women. Less than 5% of uterine cancers are carcinosarcomas.

Carcinosarcomas are highly aggressive biphasic neoplasms composed of carcinomatous and sarcomatous elements.

Complete cytoreduction surgery is the mainstay of treatment for primary peritoneal carcinomas. Systemic chemotherapy is advised in all cases because of the early spreading of these tumours.

The majority of cases are described in women over the age of 40

First case describe in 1955 by Ober and Black.¹

Background

73 year old, with two previous vaginal deliveries.

Referred by her GP to the colorectal team with vague symptoms of pyrexia, nausea, reduced appetite, left sided abdominal heaviness and a change in bowel habit.

When reviewed in gynaecology clinic a lump was noticed on the left side of the abdomen.

Past medical history of hypertension, diverticular disease, mechanical back pain, sciatica and appendicectomy.

Drug history: Felodipine

Retired civil servant with overall performance status of 1.

Imaging

- A CT scan demonstrated a large heterogenous mass in the left iliac fossa measuring 10 x 10 x 10 cm which appeared centrally cystic with enhancing septations. Appears to arise from left ovary.
- A TVUSS confirmed a multi-fibroid uterus, the largest of which was 3.4cm and a thickened endometrial lining measuring 14mm.
- Had outpatient hysteroscopy which showed an endometrial polyp.
- Histology demonstrated benign endometrial tissue and partly hyalinised leiomyoma with no atypical features.
- An MRI scan showed the left iliac fossa mass measured 11x 9.4x 11 with solid and cystic areas. It was abutting the external iliac vessels posteriorly and extended slightly to the inguinal canal. Separate from the ovary but possibly communicating with the uterus raising the possibility of a pedunculated fibroid which has undergone sarcomatous transformation.

Figure 1

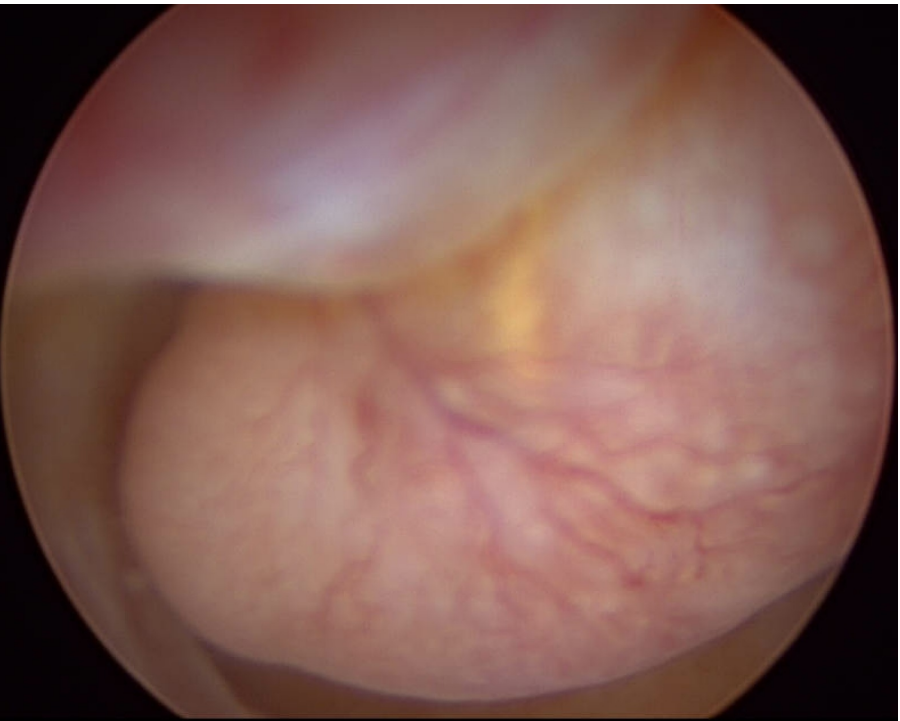


Figure 1: Image of polyp seen at hysteroscopy

Figure 2

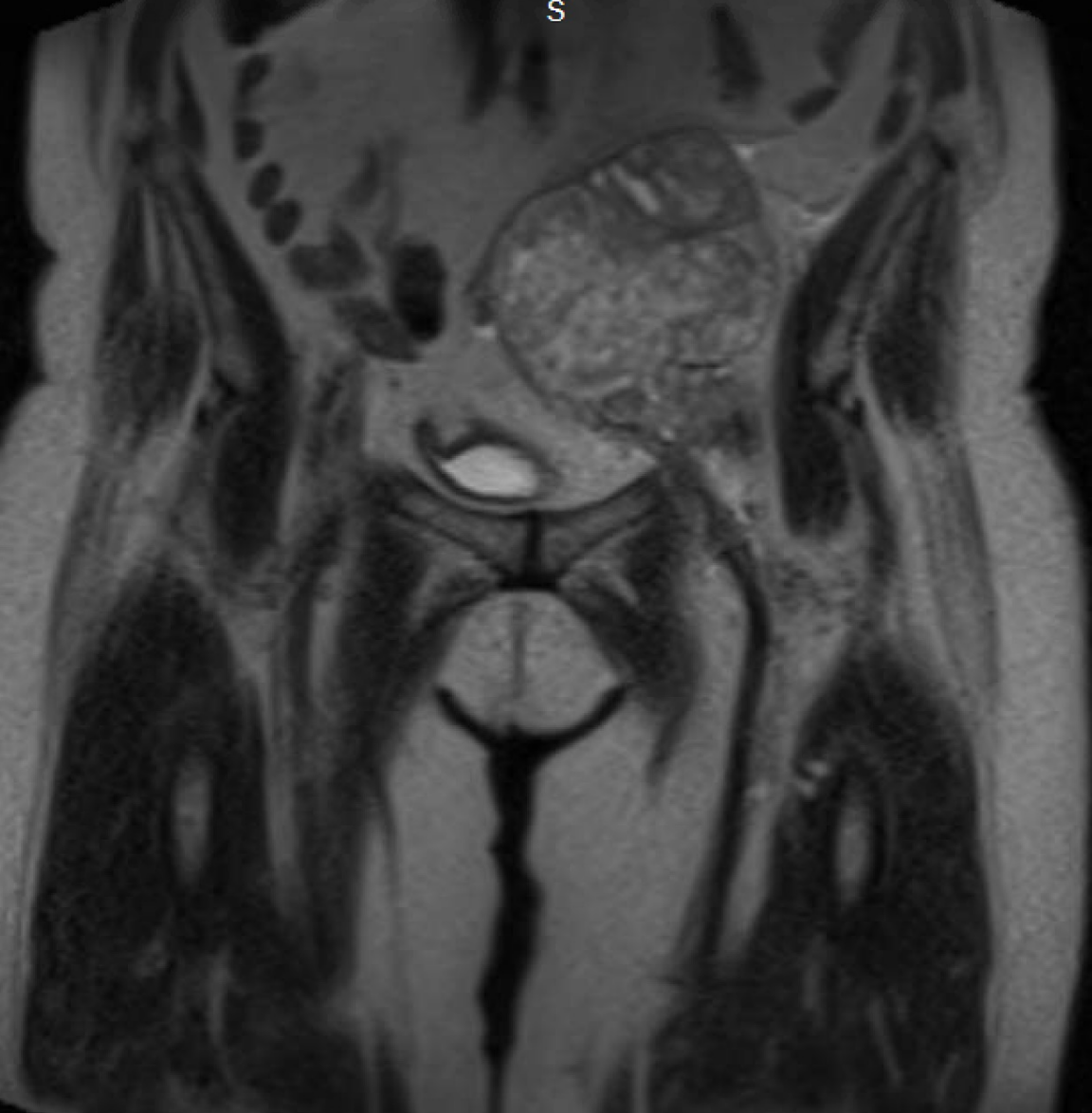


Figure 2: Coronal view of MRI scan from pelvis.

Surgery

- The patient had a total abdominal hysterectomy, bilateral salpingo- oophorectomy and en-bloc resection of left pelvic side wall mass.
- A large 12-15cm mass adherent to the left pelvic side wall.
- The main bulk of the tumour separated from a small area just proximal to the inguinal ligament.
- The mass was encircling the external iliac arteries therefore unable to get a clear margin.

Histology

- Sections of the tumour show a malignant neoplasm composed of spindle and epithelioid cells.
- The spindle cells are arranged in short fascicles and show nuclear hyperchromasia, pleomorphism and conspicuous mitotic figures. Focal atypical cartilage is also present.
- The epithelioid component is seen as small, discohesive, islands of hyperchromatic cells with fine chromatin and inconspicuous nucleoli. Gland formation is not present.
- The mitotic count is 13/hpf. No lymphovascular invasion is identified.
- The female genital tract examined showed no evidence of malignancy, and surgically this tumour has arisen from the 'pelvic side wall'.
- The tumour favours a histologic diagnosis of sarcomatoid carcinoma or a sarcoma which expresses cytokeratin.

Post- operation

- Made a good post operative recovery.
- CT and MRI done 1 month post op. No evidence of metastatic disease or macroscopic residual or recurrent disease.

Chemotherapy

- The MDT concluded the significant risk of recurrence would be best reduced by offering a PORTEC 3 trial² style adjuvant regime with pelvic chemo- radiation in addition to adjuvant Carboplatin and Paclitaxel chemotherapy.
- They would start with chemotherapy (up to 4 cycles) followed by chemo- radiation.
- Patient well but reports mild peripheral neuropathy. Also mild neutropenia with slightly deranged renal function.
- Has completed her forth cycle of chemotherapy at a slightly lower dose due to her peripheral neuropathy.
- Due to start adjuvant chemoradiation to the pelvis 45Gy in 25 fractions with concurrent 3-weekly cisplatin, and a boost to the positive resection margin.
- Staging CT scan 4 months post operatively shows no evidence of any recurrent or progressive disease.

Discussion

- Peritoneal carcinosarcoma has a poor prognosis with or without chemotherapy.
- Prognosis is better for homologous rather than heterologous tumours.³
- Data is limited due to the rarity of this cancer but surgical debulking is the main treatment.

References

1. Ober WB, Black MB. Neoplasms of the subcoelomic mesenchyme: report of two cases. Arch Pathol Lab Med. 1955;59:698–705.
2. de Boer S et al. Adjuvant chemoradiotherapy versus radiotherapy alone in women with high-risk endometrial cancer (PORTEC-3): patterns of recurrence and post-hoc survival analysis of a randomised phase 3 trial. Lancet Oncol. 2019 Sep;20(9):1273-1285. doi: 10.1016/S1470-2045(19)30395-X. Epub 2019 Jul 22. Erratum in: Lancet Oncol. 2019 Sep;20(9):e468.
3. Erz L, Smith B, Larson B, Ma T. Primary Peritoneal Carcinosarcoma: A Case Report. Front Surg. 2021 Aug 19;8:707929. doi: 10.3389/fsurg.2021.707929. PMID: 34490336; PMCID: PMC8418269.