Primary malignant mixed Müllerian tumour of the fallopian tube: a rare and difficult but possible diagnosis

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DESCRIPTION

Malignant tumours of the fallopian tube are very rare. The most common histological type is high-grade serous adenocarcinoma. Sarcomas occur infrequently and carcinosarcomas or malignant mixed Müllerian tumours (MMMTs) are extremely rare (0.1–0.5% of all gynaecological malignancies, with only about 60 cases reported in the literature).[1–3]

MMMTs, by definition, contain malignant stromal and epithelial elements. They are characteristically high-grade, have aggressive behaviour and poor prognosis.[3]

Given its rarity and location, the definitive diagnosis of primary fallopian tube MMMT is difficult to perform and to prove, and in the great majority of cases the diagnosis remains uncertain until the histological evaluation (ovarian tumour is the most frequent preoperative and intraoperative diagnosis).

The authors describe the case of a 68-year-old primiparous woman with a progressive increase in abdominal volume and pelvic pain for 3 months. The patient had no postmenopausal vaginal bleeding or hydrorrhoea. An abdominopelvic CT revealed a 20×18 cm heterogeneous swelling with irregular borders, an imperceptible starting point and large volume ascites (figure 1). On suspicion of uterine sarcoma, laparotomy was performed, with the possibility of debulking surgery (total hysterectomy, bilateral salpingo-oophorectomy and omentectomy). The histological examination revealed a MMMT of the fallopian tube assessed as FIGO (International Federation of Gynaecology and Obstetrics) stage IIa (figure 2). The patient underwent chemotherapy with carboplatin and paclitaxel (6 cycles) and complementary radiotherapy, which was interrupted due to disease progression. Subsequently it was decided to begin treatment with liposomal doxorubicin (2 cycles), but the patient died 12 months after being diagnosed with a massive pelvic recurrence.

Learning points

- The diagnosis of extremely rare clinical conditions requires a high degree of suspicion (not only clinically and radiographically, but also histologically).
- The existence of primary cancer of the fallopian tube is often difficult to prove and only histology can solve the challenge of definitive diagnosis of these neoplasias.
- Most patients with malignant mixed Müllerian tumours of the fallopian tube present with non-specific abdominal symptoms of pain and distension and/or atypical spotting, vaginal bleeding or hydrorrhoea.[1–3]

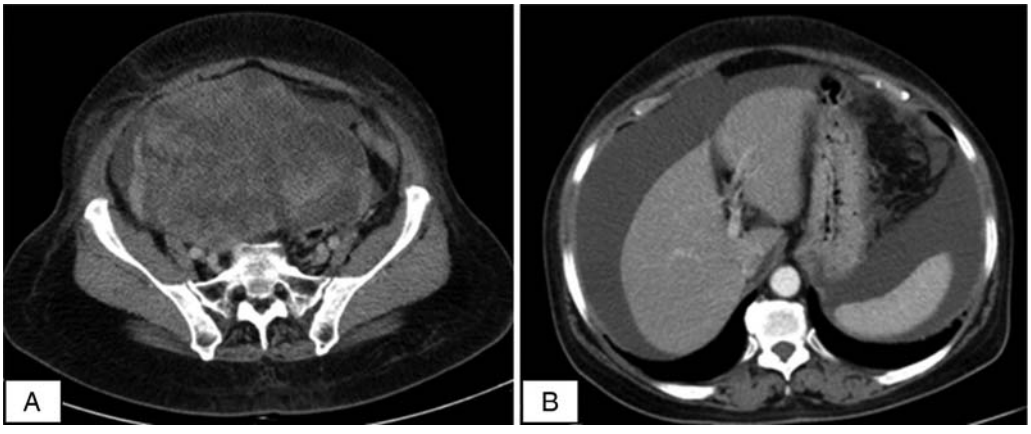

Figure 1 Abdominopelvic CT findings ((A): tumour; (B): ascites).

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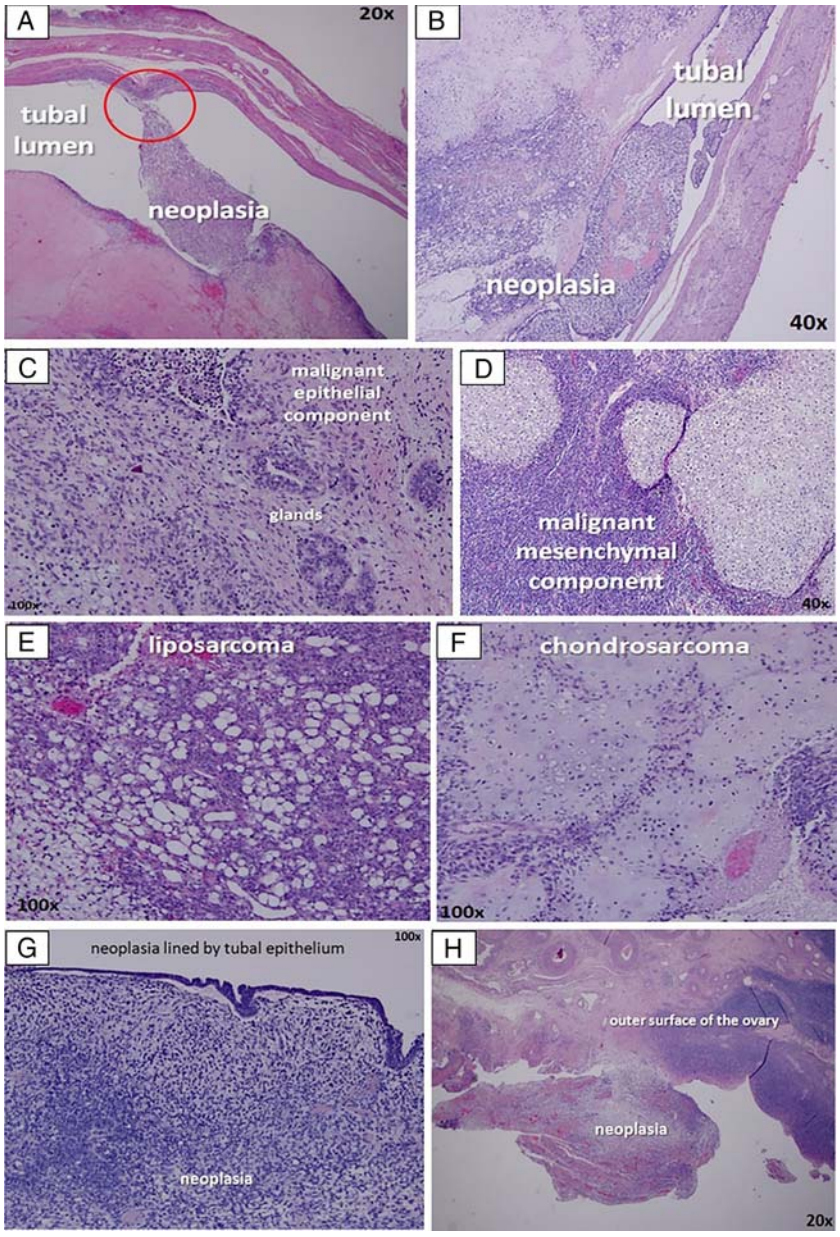

Figure 2 Microscopic findings (H&E staining). These images clearly demonstrate the diagnosis of primary malignant mixed Müllerian tumour of the fallopian tube (A). A tumour mass is seen occupying the entire tubal lumen (B) with malignant epithelial component (C) and sarcomatous components (D) with heterologous elements of liposarcoma (E) and chondrosarcoma (F) and the neoplasia is lined by tubal epithelium (G). Furthermore, there is only neoplastic involvement of the outer surface of both ovaries (H) and uterine body's serosa, the ovarian/uterine contribution is to a lesser extent than in the fallopian tube and there is no coexistent endometrial cancer of the same histological type.

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Contributors EV-F, FR and PS evaluated the patient. PS followed the patient in outpatient clinic. PS and EV-F performed the surgery. AIS performed the histological examination. EV-F collected the data and wrote the manuscript. All the authors were involved in the conception of the work and revised it critically for important intellectual content.

Competing interests None.

Patient consent Obtained.

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