

Managing Metastatic Phyllodes Tumour During Pregnancy: a multidisciplinary approach

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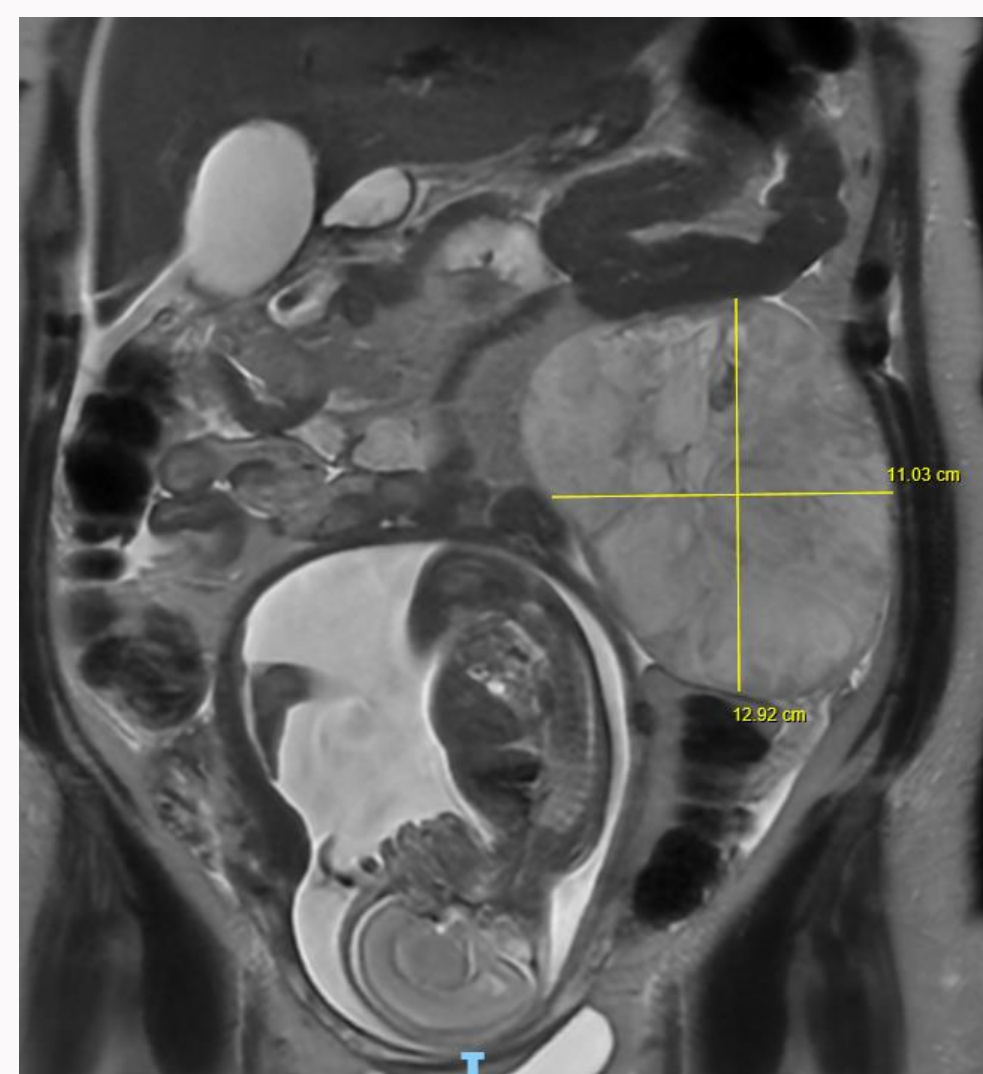
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Introduction

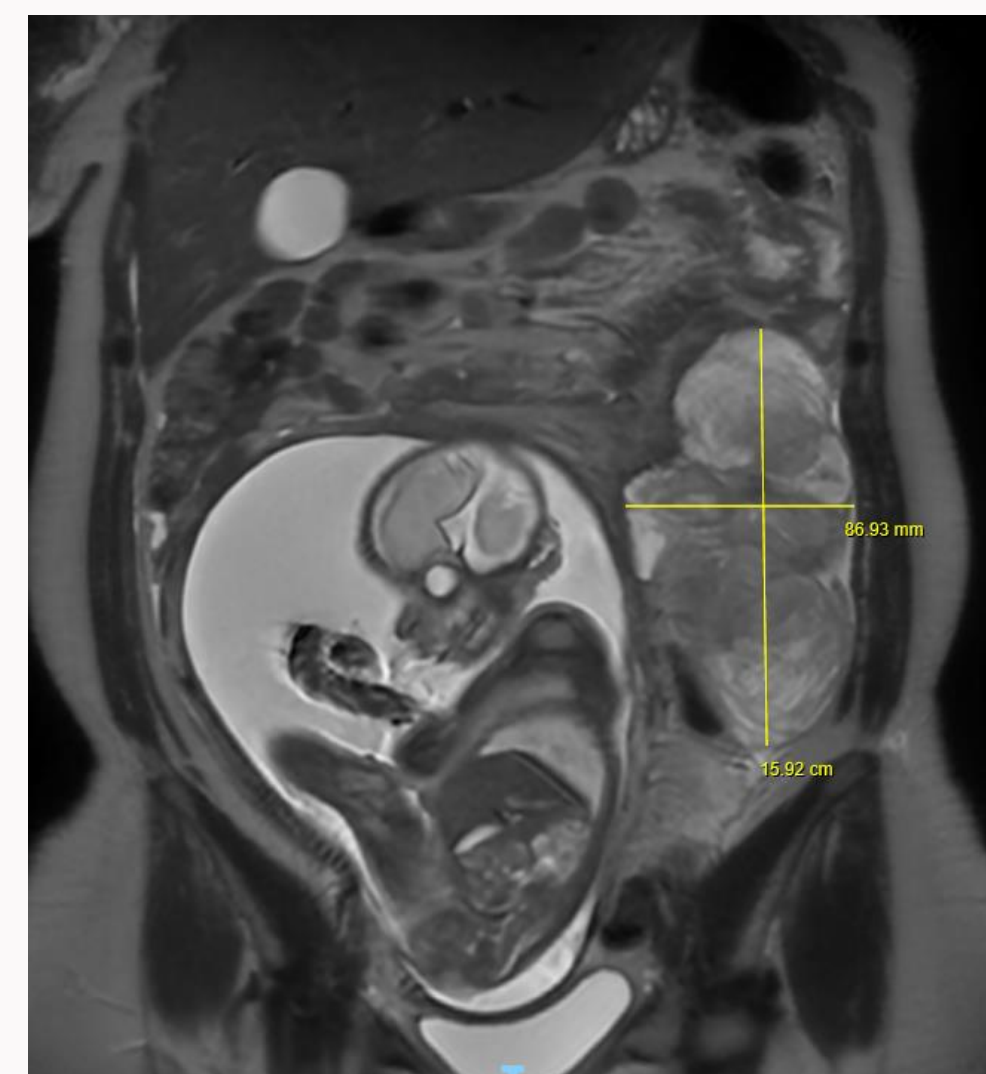
We report the case of D, diagnosed with a rare malignant phyllodes tumour (PT) during pregnancy. This case highlights the challenges faced in diagnosis and management of malignancy during pregnancy, the crucial role of the multidisciplinary team (MDT); balancing the changing needs of the mother with uncertain progressive disease, symptomatology and the desire for a safe neonatal outcome.

Background

PT is a rare tumour of the breast, accounting for around 0.2-2% of breast cancers, with a variable clinical course. Benign PTs can mimic a breast fibroadenoma, making diagnosis challenging, but borderline and malignant types can behave as an aggressive sarcomatous tumour. Metastasis can occur in 1-15% patients, with an average survival time of less than 2 years[1] PT typically presents as a single, rapidly enlarging, firm mass, often arising from a previously stable lesion. During pregnancy, hormonal changes induce profound physiological alterations in breast tissue, complicating the clinical assessment of new or changing breast masses. The diagnosis and management of PT in pregnancy is further complicated by its rarity; a recent systematic review identified only 43 reported cases worldwide[2]. Surgical excision is gold standard, with most malignant cases being treated with a mastectomy, and some evidence that adjuvant chemotherapy or radiotherapy is appropriate[3].



MRI at 23+1 - 14 x 17 x 11cm solid oedematous mass presumed left ovarian. Differential between tortured native ovary or torsion of an ovarian mass lesion



MRI at 28+3 - 18 x 14 x 8 cm oedematous soft tissue mass within the left side abdomen is presumed new in keeping with tumour recurrence.



CT scan at 30+4 - Much larger left-sided abdominal mass; now almost completely fluid/necrotic, presumably due to tumour infarction and degeneration. No overt bowel invasion, obstruction or perforation.

Discussion

This case was complex, not only due to the rarity and uncertain natural history of PT, but due to the challenges of delivering care in a region where specialist services are geographically disparate. Diagnosing cancer during pregnancy can be difficult, as many symptoms may mimic physiological gestational changes - in Ds case, of breast changes and then later abdominal discomfort and constipation. The most recent MBACE report highlighted the need to investigate new or unusual symptoms in pregnant women to ensure these diagnoses are not delayed[4]. D had her enlarging breast lump investigated abroad, returning in the second trimester having had a mastectomy. We knew that the tumour excised was a malignant PT, and that MRI suggested no spread; she was referred for local breast team follow up but had presented as an emergency before that appointment occurred. Having not had surgery in the UK perhaps made MDT discussion more disjointed and may have altered her clinical course. As well as breast team input, close collaboration was needed between obstetric, gynaecological, neonatal, and colorectal surgical care locally, with remote advice from the specialist sarcoma and medical oncology teams based in different cities. A pertinent example of this was when D presented, with an acute abdomen and concerns of a bowel obstruction; she was too unwell to transfer to the hospital with the sarcoma surgeons, so they provided advice over the phone. After MDT discussion a CT scan was recommended, despite the usual concerns about foetal radiation exposure, which gave us more information before proceeding to an emergency caesarean section. This decision underscores the necessity for pragmatic, patient-centred approaches in such complex clinical scenarios and the importance of MDT involvement. Throughout D's illness, and especially post-partum, the MDT made concerted efforts to care for her not just as a cancer patient, but as a new mother - a key recommendation from the most recent MBRRACE analysis[5] Despite her deteriorating condition, significant emphasis was placed on helping her spend time with her baby and create lasting family memories, with support from palliative care, oncology, midwifery, gynaecology, and neonatal teams. The neonatal nurses, who are well practiced in memory-making and compassionate care—typically in situations where the baby has a guarded prognosis—were invaluable in facilitating precious moments for the family. Her transfer from the oncology centre back to her local hospital—where she was closer to her baby and cared for by a team who knew her well—allowed D to spend her final days surrounded by healthcare professionals who placed her holistic needs at the heart of her care.

Conclusion

In gynaecological oncology, we are adept at managing the complexities that arise when rare tumours necessitate care in a tertiary centre. In obstetrics, we are equally skilled in planning deliveries when preterm birth is required for maternal health. This case illustrates that when both of these challenging situations intersect, effective multidisciplinary team care, grounded in clear communication and an acceptance of the uncertainty surrounding outcomes, can provide compassionate, coordinated care. For D and her family, this approach maximised the time they had together, treating her holistically, even though the maternal outcome was death.

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The authors declare no conflict of interest

15+0
Mastectomy for breast lump identified in 1st trimester. MRI: No spread. Care from 12-22 weeks in home country – had returned to get breast lump assessed by familiar team

23+0
Presents as emergency with **severe abdominal pain**. Tachycardia, tense abdomen. 13cm ovarian mass on USS
23+1
MRI to aid surgical planning, shows large adnexal mass, ?ovarian; oedematous, ?malignant, likely tort
Midline left salpingo-oophorectomy, omental biopsy and washings. Tumour solid .
23+5:
Discharged post-op. Plan to await Sarcoma MDT.

28+3:
Antenatal clinic – growth scan EFW 30th centile. Has left sided pain. On examination tender and full in LIF – admission for imaging. USS show **Recurrent mass 14cm, likely sarcoma**. CT: No spread
28+4:
MRI: Recurrence of large left sided abdominal mass
Discharged with analgesia, laxatives

30+3
Re-presents with pain, constipation, dehydration. Admitted for analgesia and IVF
30+4
Becomes more unwell, vomiting, in pain. Peritonitic . MDT with Sarcoma team, general surgeons, radiology. CT shows large necrotic mass, no bowel involvement. Sarcoma team advise CS locally in order to facilitate ongoing oncological management. Steroids and MgSO4 given in preparation.
30+5
Emergency caesarean section, male infant delivered in good condition for gestation and admitted to NNU. Large malignant looking mass filling left upper quadrant of abdomen, small deposit, <1cm, noted at UV fold

Post natal D21:
Transferred back to home hospital on gynaecology ward. Condition deteriorating as abdominal mass progressing, now 34cm and with signs of perforation. Collaboration with palliative care doctors. Input with neonatal team to allow parents and baby time together.

10+1
Booking appointment. Primiparous, 38 years old. Generally fit and well.
Mentions **enlarging lump in left breast**, present for 2 years and previously investigated with MRI: benign cyst.

22+4
Medical obstetrics antenatal clinic
Has some bloating, LIF ache & constipation
Plan for growth scans, local breast team follow up, and LMWH 28/40

25+3
Pathology confirms high grade sarcoma, likely metastatic phyllodes tumour. Omental biopsy and washings negative. Discussion with regional gynae MDT, national sarcoma MDT, regional breast MDT: plan CT chest, interval MRI t 6 weeks

30+2:
Re-discussed at national sarcoma MDT: systemic therapy not possible until after delivery; try to prolong pregnancy to 32 weeks to allow fetal development

Post natal week 1:
Recovery complicated by post operative ileus, issues with pain control and then loose stool. Palliative care team involved. Care on labour ward for continuity.

Post natal D13-21:
Transferred to regional cancer center for course of **doxorubicin chemotherapy** – too unwell for two agent treatment

Post natal D34:
Deceased, rest in peace.