

Introduction

The MBRRACE-UK report showed that between 2017-19, 89 women died during and up to one year after pregnancy from a malignancy.¹ Here we describe a case report of a nulliparous 33 year old pregnant woman of Pakistani origin. We report this case due to its atypical clinical presentation and unusual sequence of events.

Clinical Background:

This patient had a background history of iron deficiency anaemia, a BMI of 34.3kg/m² and was booked for midwifery led care. She presented on several occasions to the General practitioner, Emergency department and Maternity assessment centre with persistent back pain. She was advised to use regular analgesia and was referred to the physiotherapy team where she was given exercises to improve the pain.

Antenatal period:

At 30+1 she presented to the Antenatal day unit with her 2nd episode of reduced foetal movements and was incidentally found to have raised blood pressure (BP) which led to her hospital admission. During this period, she was diagnosed with pre-eclampsia and managed accordingly. At 30+5 she developed shortness of breath for which she was awaiting investigations and was commenced Low Molecular Weight Heparin (LMWH). The following day her BP remained poorly controlled and her CTG became abnormal. A decision to perform an emergency caesarean section (ECS) under general anaesthesia (GA) was made.

Clinical Background:

The ECS was complicated by an anterior placenta and transverse lie, which resulted in an extension to both uterine angles and an inverted T incision to deliver the baby. She then went on to have a post partum haemorrhage (PPH) secondary to uterine atony. The major obstetric haemorrhage protocol was followed. During the procedure it was noted that she became bradycardic followed by asystole and a crash call was put out immediately and CPR started. Once output was achieved she was transferred to intensive care unit (ICU).

Contact Information:
Hospital: Pinderfield Hospital, The Mid Yorkshire Hospitals
email: nadya.begum@nhs.net

Acknowledgements:
The Mid- Yorkshire hospital Quality, risk and governance team for obstetrics and Gynaecology

Postnatal Period

During the next 24 hours she went onto have a further PPH and was taken back to theatre and underwent a hysterectomy and bilateral salpingo-oophorectomy. During the procedure the ovaries were described as ‘very large, full of blood and friable.’

Due to a slow recovery, she underwent several investigations which revealed severe vitamin D deficiency and CT imaging showed: sclerotic lesions, old L4 vertebral fracture and a pulmonary embolism. The ovarian histology revealed a multiple malignant tumour which was identified as metastatic signet ring carcinoma (Krukenberg). She unfortunately began to deteriorate and on day 26 of admission she suffered a further cardiac arrest and CPR was unsuccessful. Her family were present at the time of her death.

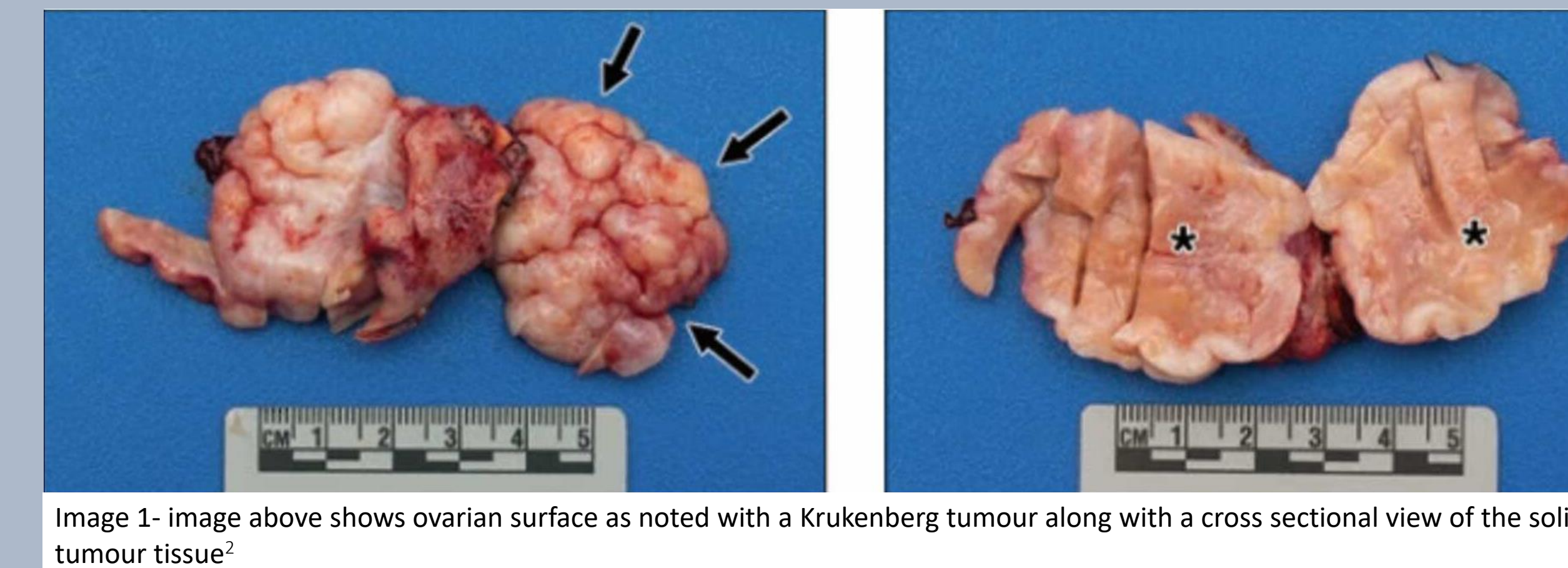


Image 1- image above shows ovarian surface as noted with a Krukenberg tumour along with a cross sectional view of the solid tumour tissue²

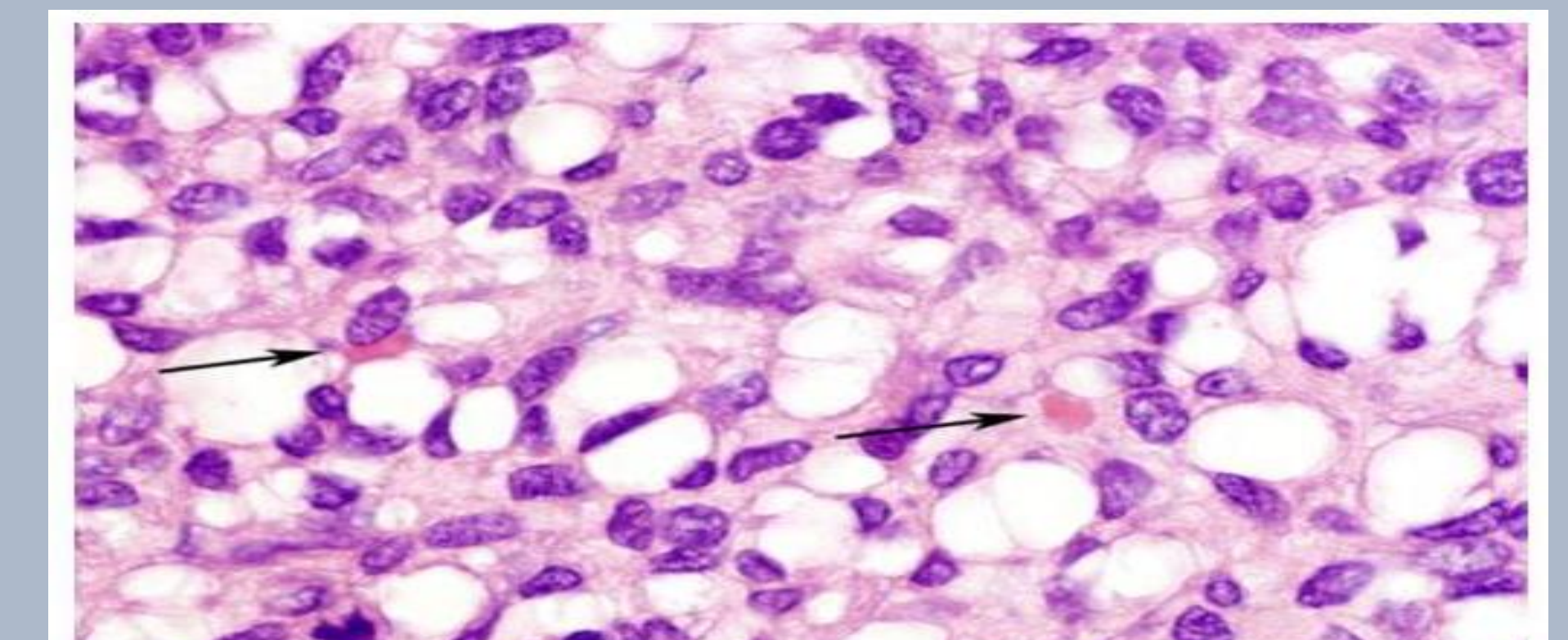


Figure 1 – Histology slide: Signet ring cells can be seen here. Their distinctive feature is looking like a signet ring as the mucin within the cell pushes the nucleus to one side.³

Discussion

According to research, Krukenberg tumours in pregnancy are very rare with 10 cases being identified worldwide from 2009-2014.⁴ This case outlined two main challenges:

- 1- given the type of cancer and its aggressive nature diagnosis and management was very difficult
- 2- the overlap of symptoms that are also commonly experienced in pregnancy e.g., back pain

As the MBRRACE report outlined we need to investigate symptoms further when patients re-present with them or they seem to be worsening.¹

References

1. MBRRACE (2021), Saving Lives improving mothers care https://www.npeu.ox.ac.uk/assets/downloads/mbrrace-uk/reports/maternal-report-2021/MBRRACE-UK_Maternal_CORE_Report_2021_-_FINAL.pdf (accessed on April 2023)
2. Zulfiqar.M. et al, Krukenberg tumours: update on imaging and clinical features, <https://www.ajronline.org/doi/pdf/10.2214/AJR.19.22184>, (Accessed May 2023)
3. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8426788/> (Accessed on May 2023)
4. Sung-Hee.K et al (2014) Disseminated Cancer in Pregnancy: Krukenberg Tumour Case Reports in Obstetrics and Gynaecology [Online] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4220570/> (Accessed May 2023)