

Successful Embolisation of an Actively Bleeding Hepatocellular Adenoma in Pregnancy

Figueiredo S¹, Parnell L¹, Alrawashdeh W², Figueiredo R², Littler P³, White SA², Waring G¹

¹ Department of Obstetrics, Royal Victoria Infirmary, Newcastle upon Tyne, UK
² Department of Hepato-pancreato-biliary Surgery, Freeman Hospital, Newcastle upon Tyne, UK
³ Department of Interventional Radiology, Freeman Hospital, Newcastle upon Tyne, UK



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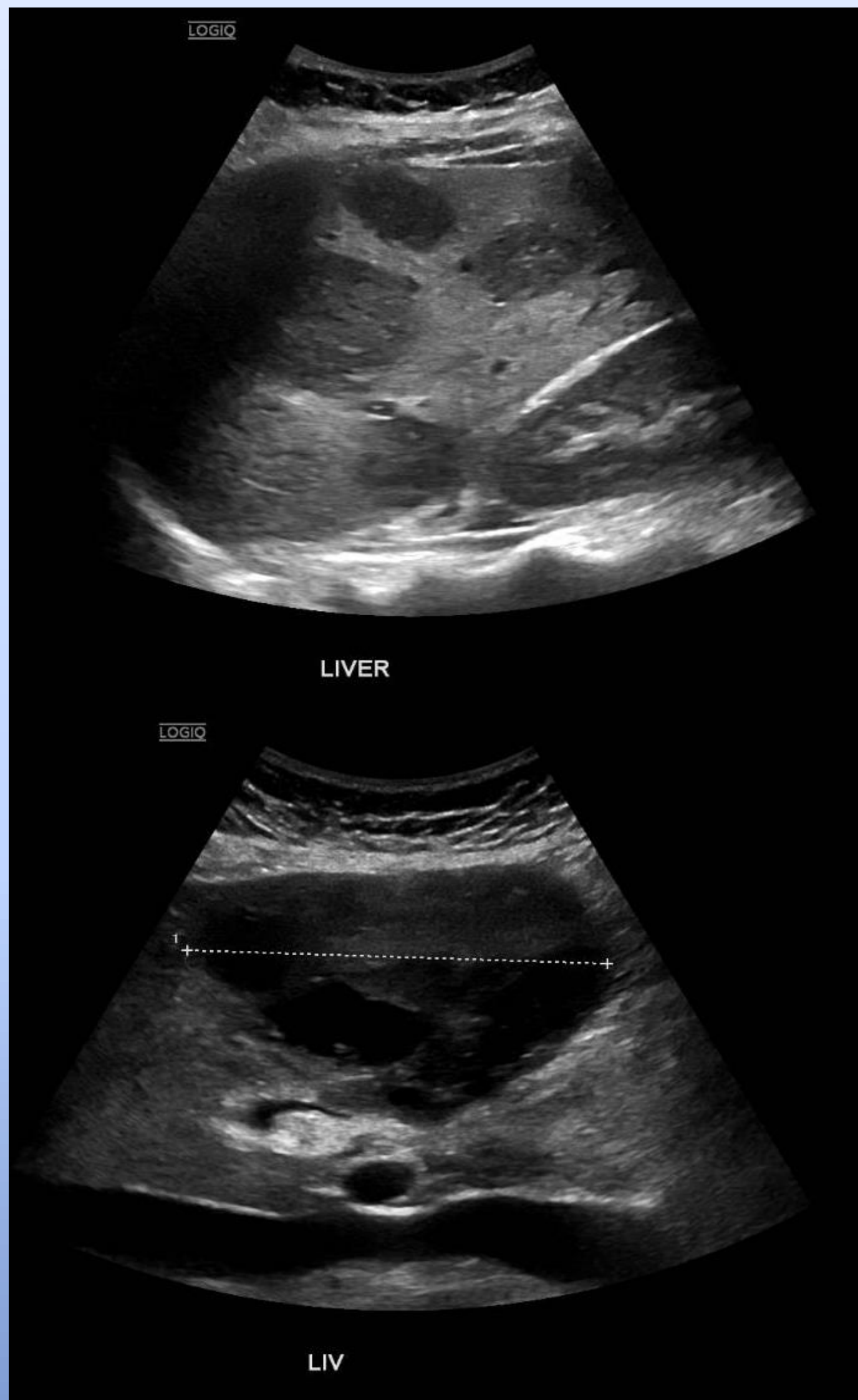
Background

- 35 year old, Para 5 (SVDs)
- BMI 36, Bangladeshi
- No significant PMH, non-smoker, no alcohol

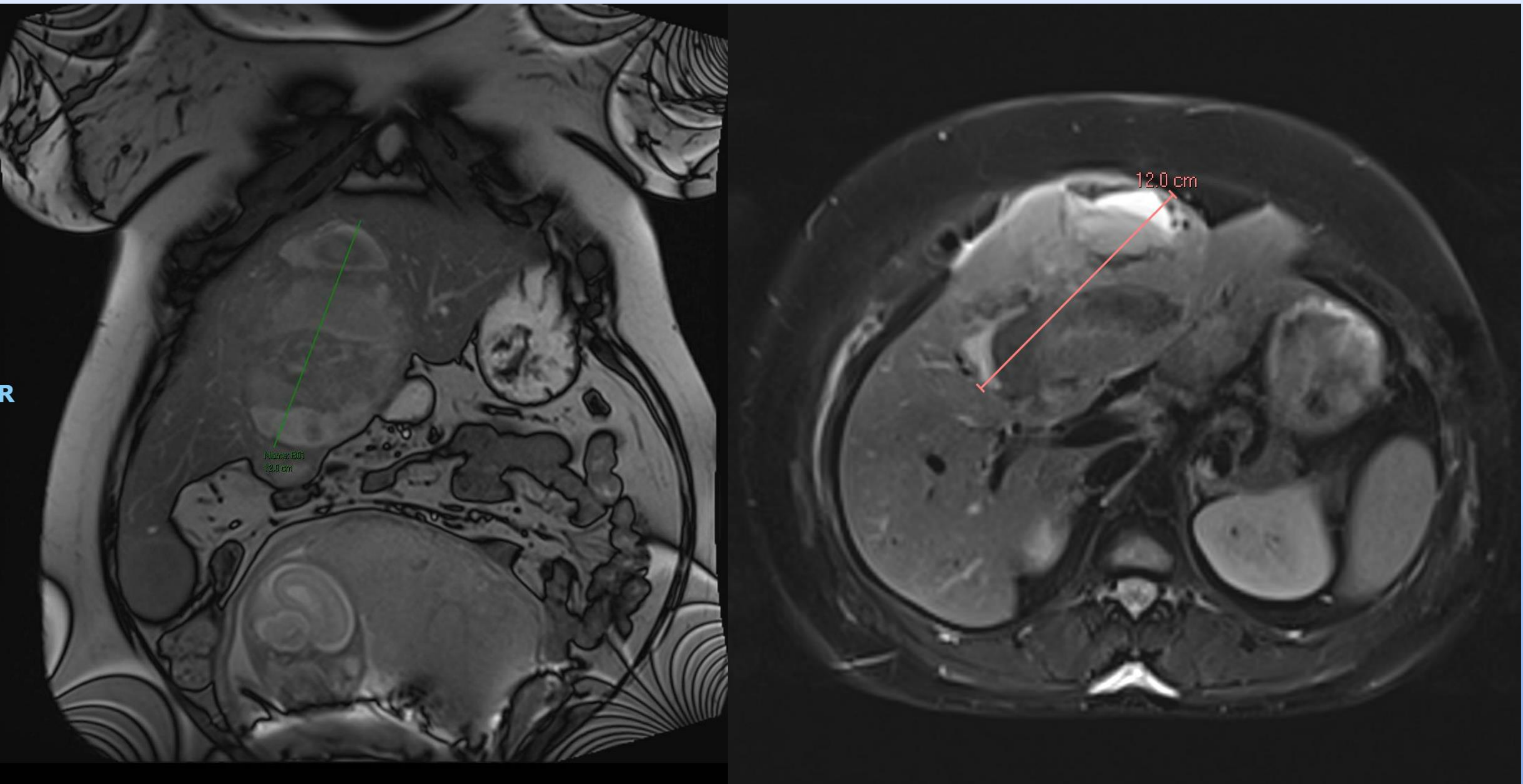
Presentation

- 23 weeks gestation
- Sudden onset severe epigastric/RUQ pain
- Vomiting
- Tachycardic, normotensive
- Raised ALT & CRP

Liver Ultrasound



MRI Liver



Diagnosis

- 12cm hepatocellular adenoma (HCA) in segment 4 of the liver, with active intra-tumoural haemorrhage
- Multiple smaller HCAs (>15) plus moderate-severe steatosis

Management

- Transferred to regional HPB surgery unit
 - Freeman Hospital, Newcastle upon Tyne
- Two stage trans-arterial embolisation (TAE)
 - Subtotal embolisation on presentation at 23/40
 - Completion procedure 2 weeks later at 25/40

- Inpatient for duration of pregnancy
- Close multidisciplinary team management
- Frequent liver imaging – fortnightly MRI
- Elective delivery plan (initially planned for 32 weeks)
- Contingency plan for in the event of major haemorrhage

Catheter Angiogram

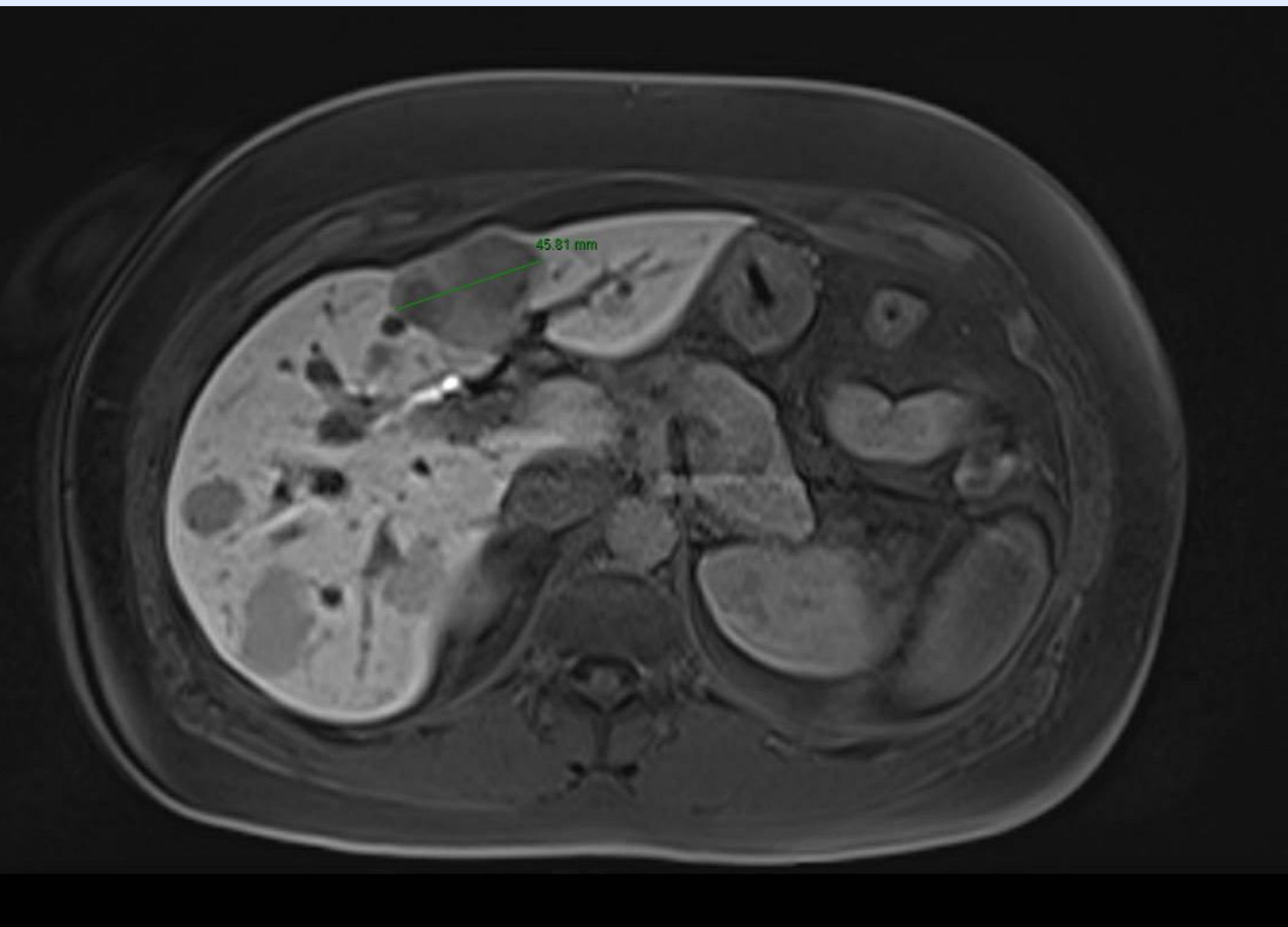


Case Progression

- GDM at 26 weeks
- No fetal concerns
- Shrinkage of largest adenoma to 6cm
- Less involvement of major liver vessels
- Delivery date postponed to 34 weeks due to regression

Outcome

- Caesarean section at 34+1
- Baby boy 2380g
- BL salpingectomy (permanent contraception)
- MBL 1050ml
- Discharged home day 9 PN
- Post-natal imaging
- HPB follow-up



Learning Points

- First successful TAE for bleeding HCA in pregnancy reported in the literature
- Two stage embolisation - reduced risk of necrotic abscess formation
- Multidisciplinary team management key to successful outcome in this case

Management of HCA in Pregnancy

- Oestrogen induced growth - close monitoring required
- Biopsy only if high suspicion of malignancy – risk of spontaneous rupture^{1,2}
- If <5cm – low risk of bleeding event -> conservative management
- If size >5cm – treatment indicated - TAE^{3,4} or surgical resection^{1,4,5}, ideally in 2nd trimester⁶

Management of Bleeding Event

- Intra-tumoural bleed – TAE first line management – higher morbidity and mortality with surgical management^{3,6-9}
- Liver rupture – resuscitation, delivery, emergency hepatectomy
- Mode of delivery – if >5cm or any bleeding event in pregnancy -> caesarean section due to risk of intrapartum liver rupture^{3,6}
- Close observation in postnatal period – risk of rapid tumour regression and haemorrhage

Risk Factors for HCA Haemorrhage^{2,9}

- Size (> 5cm)
- Left lobe
- Exophytic growth
- Lesion close to liver capsule
- Hepatic steatosis >30%
- 3rd trimester
- Intrapartum
- Post partum period
- Sonic hedgehog subtype (one of the five molecular subtypes of HCA¹⁰)

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