

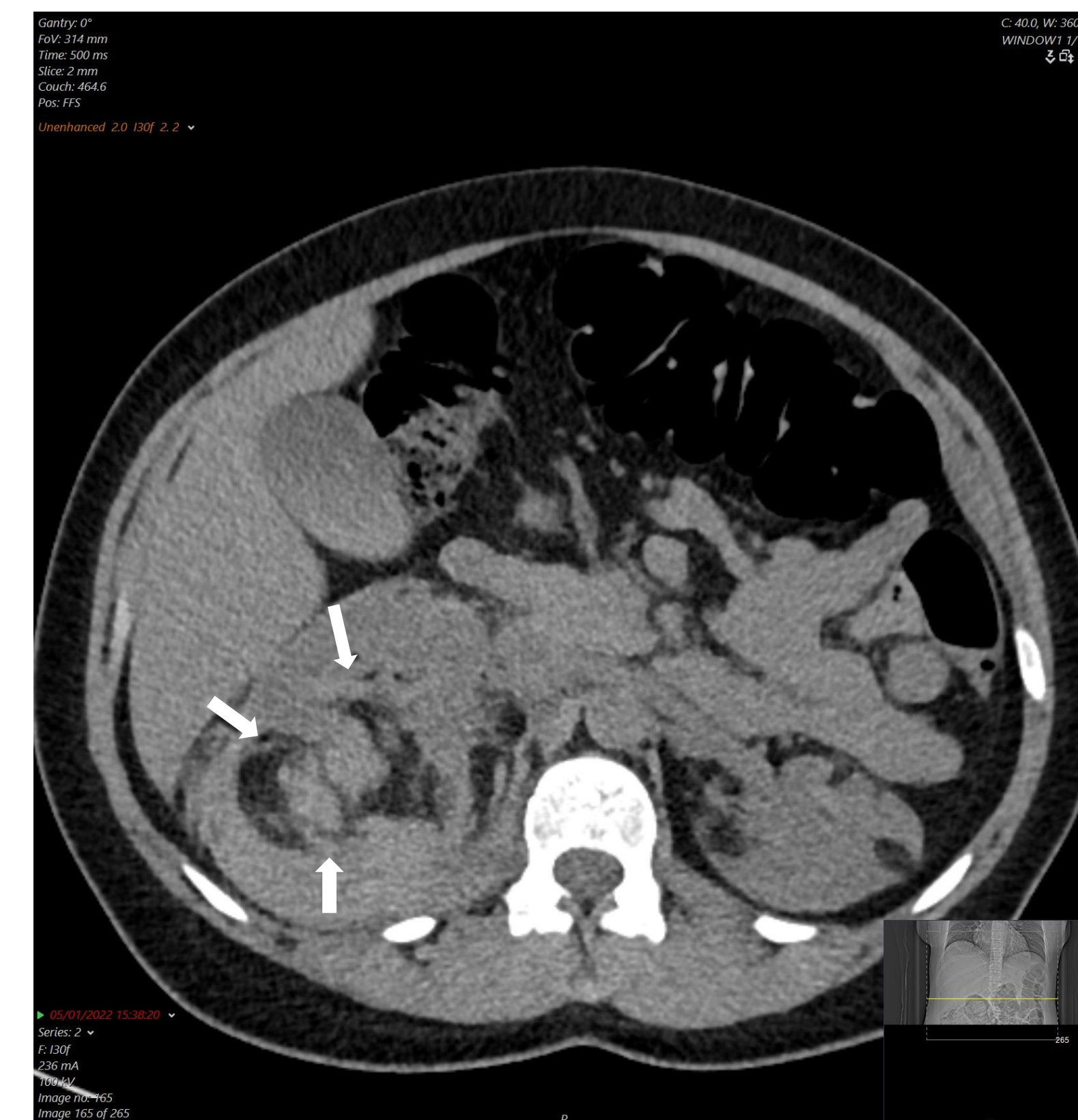
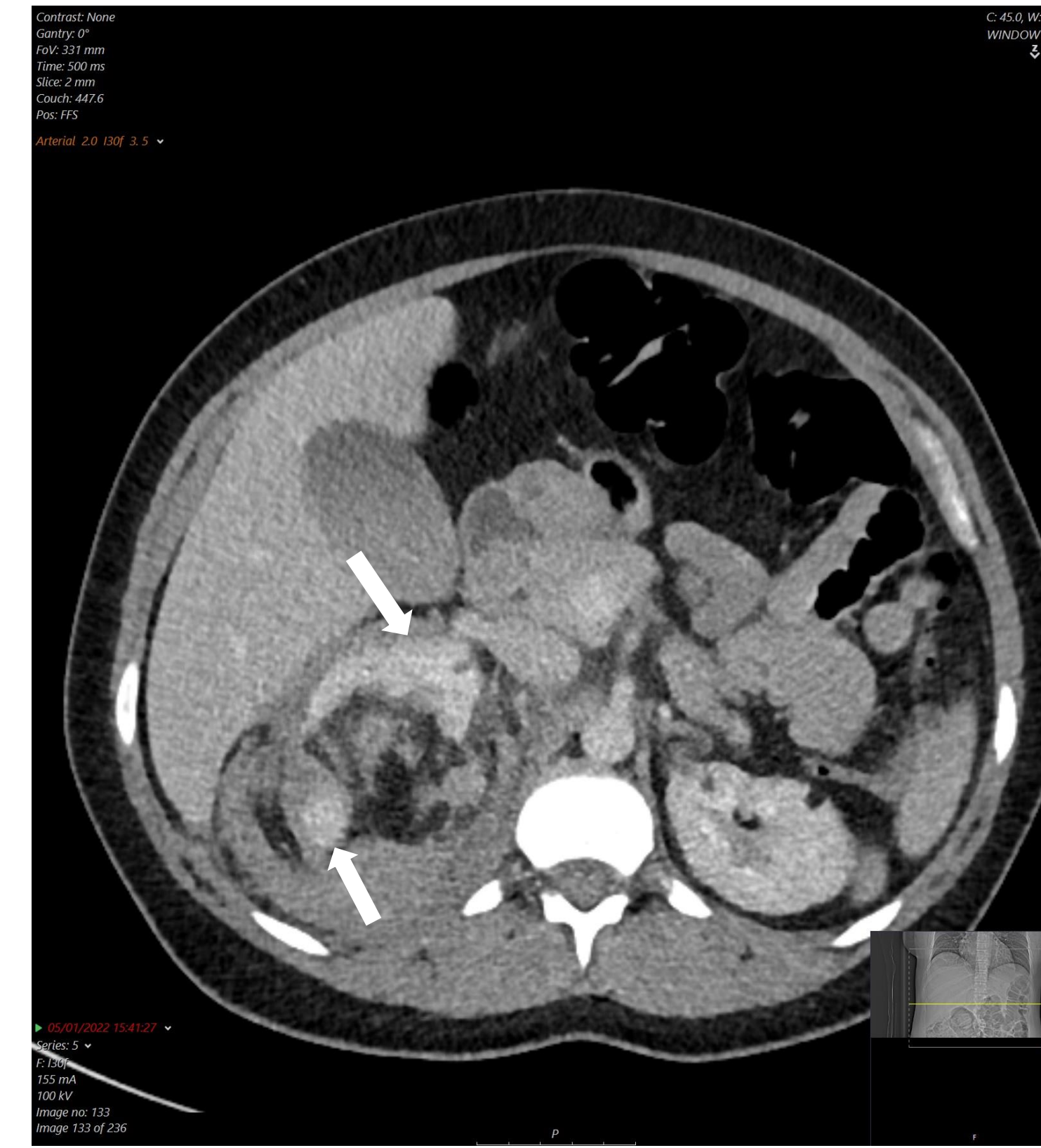
Renal Angiomyolipoma (AML) are some of the rarest hormone-sensitive tumours prevalent among pregnant women. Due to elevated oestrogen/ progesterone levels and pressure from the uterine enlargement during pregnancy, these tumours tend to enlarge and spontaneously rupture, leading to retroperitoneal haemorrhage, maternal shock and fetal death. AML is known to occur sporadically however can be a part of Tuberous sclerosis complex(TSC) or Pulmonary Lymphangiomyomatosis(LAM).

A rare association and an increased risk of complications, makes it difficult to establish management strategies to tackle AML rupture and ascertain foeto-maternal wellbeing. We hereby present a lady of 21 weeks gestation, with an acute presentation of a haemorrhagic AML and managed effectively by elective transcatheter arterial embolization (TAE) of the AML.

A 37yr old Gravida 4 Para 3, with family history of DVTs/PE, had an uneventful pregnancy until 21 weeks of gestation, when she attended the Emergency Department with right flank pain radiating to right upper abdominal quadrant with rapid deterioration over 12 hours, aggravated with deep breathing and abdominal movements. It was associated with 2 episodes of vomiting and she was found to be COVID-19 positive incidentally, albeit asymptomatic. She continued to perceive foetal movements.

On examination, she appeared ill, agitated with a pain score of 10/10 despite adequate analgesia, positive right renal angle tenderness. Imaging modalities of Renal ultrasound with subsequent CT Angiogram confirmed bilateral AML, the largest (fig1-3) being a 12.6cm right sided AML with features of acute haemorrhage. Her laboratory parameters was significant for a drop in haemoglobin from 129g/L to 107g/L and a sub-normal level of platelet counts to $125 \times 10^9/L$ in 24 hours, however she maintained haemodynamic stability, with unchanged foetal observations. No other characteristic markers were present to suggest Tuberous Sclerosis.

With a multi-disciplinary approach involving Obstetricians, Urologists, and Interventional Radiologists, non-surgical management was decided upon considering the patient's haemodynamic status, extent of haemorrhage and the substantial risks of a premature birth before 26 weeks. She was transferred to a tertiary centre and underwent percutaneous intravascular embolization of AML, without any complications. She made an uneventful recovery, with no further increase in lesion size, and was carried to term, delivering a healthy baby at 39 weeks by normal vaginal delivery at our DGHS following induction of labour for persistent flank pain.



CT Renal Angiogram (fig) : A 12.6 cm right renal AML with a rim of acute Haematoma within the lesion. In addition a 1.8 cm lesion is noted in the centre demonstrating significant arterial enhancement, presumed to be actively bleeding. Multiple small AMLs are also noted throughout both kidneys.

DISCUSSION

With an incidence rate of 0.3% in the general population, Renal AMLs are known to arise from the smooth muscle cells, adipose cells and epitheloid cells around the blood vessels.

Though the most common presentations of Renal AML in pregnancy are incidental findings on routine antepartum scans, spontaneous haemorrhage pose a significant risk to materno-foetal health. Other causes of retroperitoneal bleeding must be ruled out

If haemodynamically stable, a conservative approach In a monitored environment with close follow-up until term or an elective TAE has been the standard interventions due to its minimally invasive technique and renal preservation. However, among unstable patients or re-rupture AML, a multi-disciplinary approach with nephrectomy +/- caesarean section will be performed based on a number of factors

LEARNING OUTCOMES

Multi-disciplinary strategies should be individualized to one's condition, largely influenced by materno-foetal haemostability, gestational age, foetal distress, extent of haemorrhage and availability of interventional medical facilities. We hereby would like to ascertain that the differentiating characteristics of our case, on-time diagnosis and conservative approach will further reinforce our understanding on the management of such rare conditions in pregnancy.

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