

The diagnosis and management of adrenal lesions in the third trimester

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Objective

- We present a rare diagnosis of an adrenal lesion causing Cushing’s syndrome in pregnancy.
- Adrenal lesions may be associated with poor prognosis in pregnancy, due to diagnostic delays and treatment challenges.
- This case highlights the importance of prompt diagnosis, multi-disciplinary teamwork, and timely intervention.

Imaging



Case Report

- A 34-year-old primiparous woman was admitted to hospital with shortness of breath, facial and leg oedema, and intractable hypertension at 28 weeks’ gestation.
- She had a raised urinary PCR and serum ALT, and was initially treated for pre-eclampsia. Imaging with MRI revealed a unilateral, complex adrenal mass, contiguous with a lesion extending into the IVC. The woman was transferred to a tertiary-level maternity unit for care under endocrinology and level 3 neonatal intensive care.

This woman showed multiple signs and symptoms consistent with Cushing’s syndrome, including hypertension, hypokalemia, diabetes, hypercoagulability and significant bruising. After discussion with both the woman and her partner, a decision was made to perform a Caesarean section at 30+1 weeks gestation. A live baby boy was delivered in good condition with a 5-minute Apgar of 10 and transferred to NICU for supportive care. The Caesarean section was uncomplicated. Once the woman had recovered, she was promptly transferred to endocrinology and urology for a robotic adrenalectomy and extraction of IVC thrombus. The operation was successful and she and her baby were transferred to her local hospital.

Discussion

The diagnosis of adrenal lesions in pregnancy is rare, more so causing Cushing’s syndrome. Cushing’s is characterized by persistent hypertension and hypokalemia. Due to similarities in symptoms and the rarity of Cushing’s in pregnancy, it can be mis-diagnosed as pre-eclampsia. Subtle signs such as striae, weight gain and fatigue could be perceived as physiological changes of pregnancy. Elevated cortisol levels in pregnancy mean that tests usually used to investigate Cushing’s syndrome can be misleading and inconclusive.

There were multiple factors affecting this woman’s care: an early high index of suspicion for alternative diagnoses, timely investigations and appropriate transfer of care were all crucial elements. This case required effective multi-disciplinary teamwork, forward planning, and shared decision-making, amongst a range of healthcare professionals.

Diagnosis Timeline

Booking: Low risk pregnancy.

16 weeks: Borderline blood pressure readings.

20 weeks: Antihypertensives commenced.

20-28 weeks: Hypertensive treatment escalated to labetalol 200mg tds and nifedipine 10mg bd and diagnosed with PET.

28+1 weeks: Abnormal dopplers noted on scan. Worsening central and peripheral oedema and shortness of breath.

28+2 weeks: Raised ALT, hypokalaemia, hypercoagulability, hyperglycaemia.

28+3 weeks: An ultrasound was performed due to deranged LFTs and showed liver lesions adjacent to the IVC.

28+6 weeks: Labetalol escalated to 200mg qds

29+1weeks: MRI confirmed right adrenal tumour with benign features, possible communication with IVC.

29+2 weeks: Transferred to the tertiary centre for specialist care.

30+1 weeks: Caesarean section performed to facilitate surgery.

22 days post partum: A right robotic adrenalectomy and extraction of IVC tumour and thrombus was performed.

Discharged one day post adrenalectomy with local follow up. Histology confirms an adrenocorticol benign tumour secreting aldosterone and cortisol.

Conclusion

- Obstetricians should be aware of adrenal causes for persistent hypertension.
- A multi-disciplinary team approach and early intervention are vital.
- This case demonstrated efficient and timely management and resulted in good outcomes for mother and baby.

References

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