A Case of Severe Insulin Resistance in a Pregnancy with Pre-Existing Type 2 Diabetes Mellitus

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Background

The rate of type 2 diabetes mellitus (T2DM) in pregnancy is ten times higher in Indigenous than non-Indigenous Australian women.[1] These women experience poorer perinatal outcomes, with increased rates of congenital abnormalities, foetal macrosomia, caesarean section and perinatal mortality. [1,2]

Aims: To outline pregnancy progression for a patient requiring a total of **830 units** of insulin daily.

Case

A 32-year-old Indigenous woman, G3 now P3-1, presented for antenatal care at 10 weeks gestation. She had a background of T2DM with a booking HbA1c of 10.8% and BMI of 43. Serial growth scans and insulin requirements are listed.

17w3d: normal morphology, AC 70%, EFW 94%/241g

- Toujeo 166 units, Novorapid 114 units TDS, Metformin 1g XR

25w0d: AC 94%, EFW 84%/889g

- Toujeo 250 units, Novorapid 200 units TDS, Metformin 1g XR

34w0d: AC >98%, EFW 92%/2829g

- Toujeo 140 units, Novorapid 230 units TDS, Metformin 1g XR

Outcomes

This patient was admitted for BGL (blood glucose level) stabilisation at 34w1d with new elevated umbilical artery dopplers. She developed pre-eclampsia during admission. She was admitted to HDU at 34w5d with unstable BGLs and worsening hypertension. The baby was delivered via Caesarean at 34w6d weighing 2740g. No insulin was required postnatally.

Discussion

Pre-existing diabetes, obesity and inactivity can exacerbate insulin resistance in pregnancy, causing adverse outcomes.[3] The Northern Territory has increasing rates of diabetes in pregnancy.[4] Public health reforms to reduce T2DM rates is crucial to improve perinatal outcomes for women and children.[1]

Disclaimers: none to declare

References

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