Identification of significant predictors for the need of insulin therapy and onset of postpartum impaired glucose tolerance in gestational diabetes mellitus patients

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Abstract
Background: Gestational diabetes mellitus (GDM) during pregnancy can greatly increase the risk for a number of adverse prenatal and postpartum consequences. Determining the need for insulin therapy is critical for controlling the glycemic level in GDM patients. Methods: Here, we performed a retrospective study on 112 GDM patients in China to identify the significant predictors for the need of insulin therapy and onset of postpartum impaired glucose tolerance (IGT) in patients with GDM. During pregnancy, the patients were divided into two groups based on whether insulin therapy was applied for GDM treatment. Results: Age and gestational weeks at GDM diagnosis, pregestational BMI, family history of diabetes mellitus (DM), plasma glucose levels assessed by 75-g OGGT at both the 1-hour and 2-hour time points (PG-1h and PG-2h) and HbA1c level were all significantly different between the two groups. During postpartum, the same patient population was re-divided into two new groups based on their postpartum PG level. Family history of DM, PG-1h PG-2h and HbA1c level were found to be significantly different between the two groups. More importantly, PG-1h and PG-2h were identified to be significant predictors for both insulin therapy and postpartum IGT. Conclusions: Our results provide valuable indications on selection of treatment strategy for GDM and GDM-induced postpartum IGT.

Full-text
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