RESPONSE TO COMMENT ON LAW ET AL.

Suboptimal Nocturnal Glucose Control Is Associated With Large for Gestational Age in Treated Gestational Diabetes Mellitus. Diabetes Care 2019;42:810–815

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We thank Foussard et al. (1) for their insightful comments on our recent article (2). We demonstrated that women with gestational diabetes mellitus who subsequently have a large for gestational age (LGA) infant run significantly higher glucose overnight, detectable by continuous glucose monitoring (CGM), at 32 weeks' gestation than those women who do not go on to have an LGA infant (2). We speculate that there may be several reasons why this is observed.

Foussard et al. (1) suggest that, irrespective of the cause, NPH insulin administered in the evening should be considered the treatment of choice because its peak action coincides with the relative nocturnal hyperglycemia we demonstrated. Our own clinical practice has been to use a long-acting insulin analog (e.g., detemir or glargine) overnight to target a raised fasting self-monitored blood glucose (SMBG) and quick-acting analog insulin with meals to specifically target 1-h postprandial SMBG.

None of the women in the present study were therefore treated with NPH insulin, so we are unable to evaluate Foussard's valid hypothesis regarding the potential efficacy of NPH in targeting nocturnal hyperglycemia. It is worth noting that in our study, fewer women in the LGA group were being treated with insulin ($n = 1$ [7%]) at the time of CGM, compared with the women who subsequently did not have an LGA infant ($n = 20$ [14%]). There were similar numbers of women with and without an LGA infant on metformin (57% vs. 54%). Although we are clearly underpowered to draw definitive conclusions, this perhaps suggests that long-acting analog insulin was effective at preventing a higher glucose overnight.

The effects of different insulins on glucose control and outcomes have been studied in pregnancies affected by diabetes. It is interesting that when NPH and detemir were compared in pregnant women with gestational diabetes mellitus and type 2 diabetes, NPH was associated with more hypoglycemia (3). In pregnant women with type 1 diabetes, detemir was shown to be more effective at lowering fasting SMBG than NPH (4), and when detemir and glargine were compared, glargine was associated with a lower prevalence of LGA in type 1 diabetes, with no difference observed in glucose control (5). None of these studies included CGM, and while their impact on nocturnal glucose control alone cannot be specifically addressed, they illustrate that the effect of any insulin needs to be considered in the context of managing the whole pregnancy.

We believe the real challenge lies not in which treatment to choose but in detecting the need for additional treatment in the first place. Only then can we personalize therapy to the glucose profile in the right woman at the right time.

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