

2-hour GTT). Data regarding GDM types A1 and A2, birthweight (BW), and ponderal index (PI) were abstracted.

RESULTS: A total of 120 patients were diagnosed with GDM during the study period. Sixty-three (53%) had T1 screening: 23 had elevated HbA1c alone, 9 had elevated FPG alone, 11 had both HbA1c and FPG elevated, and 20 had normal HbA1c and FPG and a subsequently abnormal 2-hour GTT. Fifty-seven (47%) patients were diagnosed using traditional T3 two-step screening. There were no significant differences between T1 or T3 screening groups or within T1 diagnostic subgroups with respect to GDM type (A1 vs. A2), BW, or PI (table). **CONCLUSION:** GDM diagnosed with T1 HbA1c, FPG, both HbA1c and FPG, or 2-hour GTT results in similar ratios of subtypes (A1 vs A2) as traditional T3 screening. A prospective study is needed to accurately ascertain whether earlier diagnosis of GDM leads to improved neonatal outcomes.

Gestational diabetes outcomes based on mode of diagnosis

	Diagnosed by A1c (N=23)	Diagnosed by FPG (N=9)	Diagnosed by Both HbA1c and FPG (N=11)	Diagnosed by 2-h GTT (N=20)	Diagnosed by 3-h GTT (N=57)	P-Value
GDM A2 # (%)	14 (61)	6 (67)	7 (64)	9 (45)	24 (42)	0.158
Birthweight (g)*	3045± 862	3648 ± 524	2981 ± 776	3284 ± 366	3313 ± 476	0.190
Ponderal Index (kg/m3)*	2.5 ± 0.35	2.62 ± 0.31	2.40 ± 0.23	2.48 ± 0.32	2.59 ± 0.36	0.705

*Mean±SD.

260 The incidence of hypoglycemic episodes in pregnant women with type 1 diabetes using insulin injections versus insulin pump

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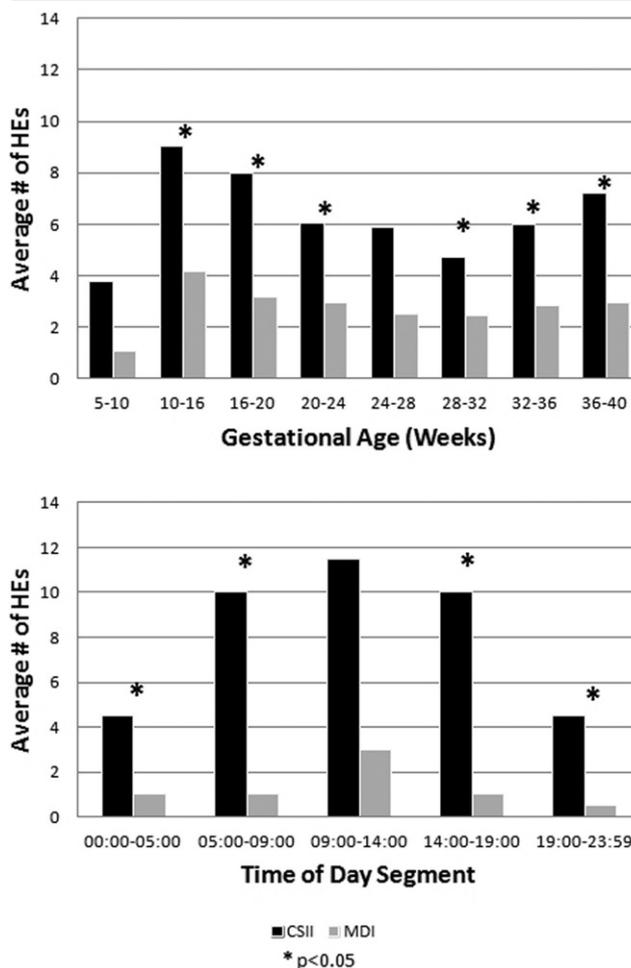
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OBJECTIVE: Hypoglycemic episodes (HE) (plasma glucose <60 mg/dL) are not infrequent in patients with Type 1 diabetes mellitus (T1DM) and can lead to morbidity. Our objective was to compare the incidence of HE across gestation and at different times throughout the day between those using multiple daily injections (MDI) or continuous subcutaneous insulin infusion pumps (CSII) for glycemic control. **STUDY DESIGN:** This was a retrospective cohort of singleton pregnancies with T1DM from 2007-2010 managed with MDI or CSII. The primary outcome was the total number of HE occurring during gestation in those using MDI as compared with CSII. Secondary outcomes included frequency of HE occurring in 4-6 week gestational age (GA) blocks and during specified time segments throughout the day. BMI, total daily insulin dose per kilogram body weight (TDI), HbA1c and neonatal outcomes were abstracted.

RESULTS: Thirty-five women with T1DM were identified. BMI, TDI, birthweight, GA at delivery, and preconception HbA1c did not differ significantly between MDI and CSII groups. However first (T1) and third trimester (T3) HbA1c were lower with CSII use (T1:MDI 7.0%, CSII 6.2%, p=0.044; T3: MDI 6.5%, CSII 6.2%, p=0.03). The number of HE during gestation in the CSII group was significantly higher (median (25%, 75%); 41 (13, 65) vs. 7 (1, 26), p=0.007). In nearly every GA block and time of day segment, HE were significantly higher with CSII than MDI (Figure). Although mode of insulin administration was the strongest independent predictor of HE, multivariable linear regression controlling for first trimester HbA1c showed no significant difference between MDI and CSII use.

CONCLUSION: Patients using CSII were significantly better controlled during pregnancy than those using MDI but consistently experienced more HE. This trade-off between glucose control and HE must be balanced. Patients with T1DM should be informed regarding occurrence of HE and specifically the importance of having readily available emergency HE therapy.

Figure



Average number of hypoglycemic episodes (HEs) by gestational age (*top*) and by time of day segment (*bottom*).

261 Cord serum C peptide levels in large-for-gestational age infants in diabetic and non-diabetic mothers

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OBJECTIVE: It is hypothesized that diabetic macrosomia is different from non-diabetic macrosomia in terms of fetal metabolic conditions. However, there are few useful clinical markers to distinguish diabetic and non-diabetic macrosomia. The aim of the study was to determine whether cord serum C peptide (CPR) is a useful marker in term large-for-gestational age (LGA) infants.

STUDY DESIGN: In this prospective study, we measured cord serum CPR concentration in singleton term LGA infants of diabetic and non-diabetic mothers. We included both pregestational diabetes and gestational diabetes (GDM) in the diabetic group. We used the Japanese birthweight standard curve to define LGA infants. We compared cord CPR levels between the diabetic and the nondiabetic groups. We also tested the difference between the groups after adjusting for confounding variables including prepregnancy body mass index (BMI), gestational age (GA) at delivery, and birthweight standard deviation (BWSD).

RESULTS: We included 97 LGA infants, in which 25 and 72 infants were born from diabetic and non-diabetic mothers, respectively. Cord