

To assess the safety and efficacy of pump therapy (continuous subcutaneous insulin infusion; CSII) during labour and delivery in women with Type 1 diabetes” Drever et al (2016).

Abstract:

AIMS: To assess the safety and efficacy of pump therapy (continuous subcutaneous insulin infusion; CSII) during labour and delivery in women with Type 1 diabetes.

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METHODS: A retrospective cohort study of 161 consecutive Type 1 diabetic pregnancies delivered during 2000-2010 at Mount Sinai Hospital, Toronto, Canada. Capillary blood glucose levels during labour and delivery and time in/out of target (target: 4-6 mmol/l) were compared along with neonatal outcomes for three groups: (1) women on pumps who stayed on pumps during labour (pump/pump n = 31), (2) women on pumps who switched to intravenous (IV) insulin infusion during labour (pump/IV n = 25), and (3) women on multiple daily injections who switched to IV insulin infusion during labour (MDI n = 105).

RESULTS: There were no significant differences between the mean or median glucose values during labour and delivery across all three groups, and no significant difference in time spent hypoglycaemic. However, women in the pump/pump group had significantly better glycaemic control as defined by mean glucose (5.5 vs. 6.4 mmol/l; P = 0.01), median glucose (5.4 vs. 6.3 mmol/l; P = 0.02), and more time spent in target (60.9% vs. 39.2%; P = 0.06) compared with women in the pump/IV group (after removing one outlier).

CONCLUSIONS: This study demonstrates that the continuation of CSII therapy during labour and delivery appears safe and efficacious. Moreover, women who choose to continue CSII have better glucose control during delivery than those who switch to IV insulin, suggesting that it should be standard practice to allow women the option of continuing CSII during labour and delivery.

Reference:

Drever, E., Tomlinson, G., Bai, A.D. and Feig, D.S. (2016) Insulin pump use compared with intravenous insulin during labour and delivery: the INSPIRED observational cohort study. Diabetic Medicine. March 1st. .

doi: 10.1111/dme.13106.

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