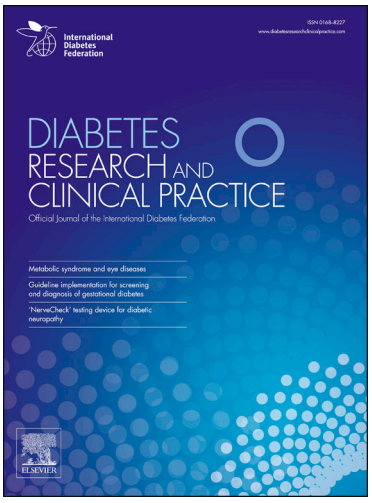

Comparison of Continuous Glucose Monitoring in Adolescents with Type 1 Diabetes. Ramadan versus Non-Ramadan

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ABSTRACT

Comparison of Continuous Glucose Monitoring in Adolescents with Type 1 Diabetes:

Ramadan versus Non-Ramadan

Aim:

To assess the impact of fasting on interstitial glucose (IG) in adolescents with type 1 DM (T1DM) by using continuous glucose monitoring (CGM).

Method:

A minimum of 2.5 days CGM was done on adolescents with T1DM during fasting in Ramadan and in the month before or after Ramadan to compare the differences in mean IG, and in the durations of hypoglycemia (<70mg/dL), hyperglycemia (200-299 mg/dL), and severe hyperglycemia (≥300mg/dL)

Results:

Fourteen adolescents were studied, age 15 ± 4 years, duration of diabetes 6 ± 4 years, and HbA1C 8.6 ± 1.1% (70.3 mmol/mol). There was no difference in the mean IG (190 ± 39 and 180 ± 37, p= 0.4), or in the durations of hypoglycemia (5.14 ± 5% and 7.03 ± 4.9%, p=0.3), hyperglycemia (25.35 ± 11.3% and 24.24 ± 10.1% (P=0.7)), and severe hyperglycemia (13.21 ± 13,4% and 10.96 ± 10.6%, P=0.6), between Ramadan and, non-Ramadan, respectively

Conclusion:

Adolescents with T1DM have the same wide fluctuation in IG during fasting in Ramadan as they do outside Ramadan. Insulin regimen adjustment should be targeting both extremes of glucose abnormality.