

RAMADAN FASTING AMONG PATIENTS WITH DIABETES-ASSESSING CHANGES IN GLUCOSE PROFILES USING CONTINUOUS GLUCOSE MONITORING (CGM)

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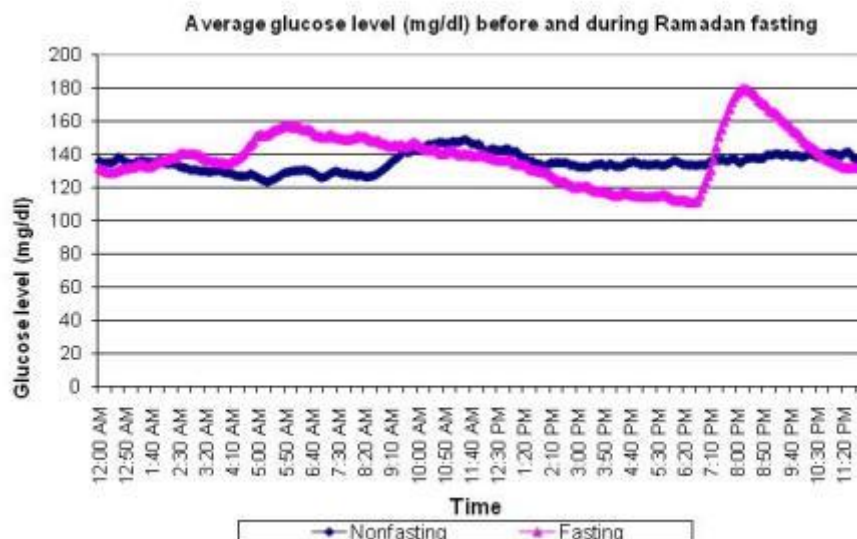
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Introduction: Fasting during the Muslim holy month of Ramadan alters glycaemic profile and control among patients with diabetes. We have used Continuous Glucose Monitoring (CGM) to study these changes.

Methods: Seventeen patients (15 male, 2 female) with diabetes mellitus had CGM for 3 days prior to and during Ramadan fasting. For each period a mean 24 hour glucose curve was constructed. Low Blood Glucose Index (LBGI) and High Blood Glucose Index (HBGI), were calculated for fasting and non-fasting periods.

Results: There was a major difference in CGM profiles amongst patients with diabetes during and outside fasting period with characteristic rapid rise in blood glucose during iftar (breaking of fasting). There was a significant difference ($p < 0.001$) in LBGI (72.9 v 3.95), HBGI (72.9 v 171.6) and mean blood glucose (139.3 v 135.3) between fasting and non fasting periods.

Conclusion: In this first prospective study of Ramadan fasting using CGM we have shown a small, but significant increase in mean glucose level with a major excursion at the evening meal. In our group of patients with good glycaemic control no significant increase in hypoglycaemic episodes was seen during Ramadan fasting.



[Figure 1]