

## Role of nutritional education in the management of type 2 diabetes during ramadan fasting

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Undertaking fasting during Ramadan constitutes a real challenge for people with diabetes, for their health care providers and even for their families. The therapeutic strategy should be individualized and patients who want to fast Ramadan safely should be previously educated in order to avoid diabetes complications during this period.

125 patients with diabetes type 2 aged of  $51 \pm 7$  years were selected before Ramadan 2011 in Sidi-Bel-Abbes city (West of Algeria). Before Ramadan, 70 individuals, among the studied population (group 1), have been given advices and training on how to manage their diet, medication and monitoring their serum glucose. The rest (group 2) did not. The food consumption was assessed using the three days food record. FSG (fasting serum glucose), PPG (postprandial serum glucose), HbA1c, total cholesterol, HDL-c, LDL-c and Lp (a) lipoprotein a, were measured before during and after fasting month.

Results showed that 96% of group 1 were able to fast more than 21 days with a frequency of hypoglycemic episodes of 9 fold lower than group 2. 16 patients from group 2 were hospitalized because of severe hypoglycemic events ( $<3.3$  mmol L<sup>-1</sup>) and therefore interrupted fasting. Significant differences ( $p < 0.05$ ) have been noticed between the two studied groups for FSG, HbA1c, total cholesterol and Lp (a).

Educating people with diabetes type 2, who want to fast safely Ramadan, will help greatly to prevent metabolic complications such as hypoglycemia and hyperglycemia during this period.

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