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Title:

Ramadan fasting in diabetes-exercise in problem-solving

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Background

Management of diabetes during Ramadan fasting presents a significant challenge to healthcare providers. Considerable number of Muslims follow Ramadan fast [1]. Fasting during Ramadan for patients with diabetes carries a risk of an assortment of complications, hypoglycemia being one of the major. The current treatment of type 2 diabetes (T2DM) includes a wide variety of therapeutic options, some with a potential to cause hypoglycemia and mandate proper medical management during Ramadan.

Case presentation

A 45-year old male taxi driver with underlying T2DM for last 5 years was presented at the diabetes clinic. His current anti-diabetic medications, apart from the routine lifestyle changes, include metformin 500mg BID and glimepiride 2mg. Since he also had systemic arterial hypertension and dyslipidemia, was being treated for the same. He had a history of coronary insufficiency (he underwent an angioplasty 2 years ago) and his 24-h urine collection revealed a urinary albumin excretion rate of 250 mg/day. During follow-up, he reported to have multiple episodes of dizziness and feeling restless on and off while driving. He seems to be compliant with his medications & diet. He expressed his wish to fast in Ramadan. His current A1c is 8.3%; fasting plasma glucose, 155 mg/dL; and post prandial glucose, 248 mg/dL with a body mass index (BMI) of 28.8 kg/m_2. During the pre-Ramadan assessment, glimepiride 2mg was changed to extended release gliclazide 60 mg. There was an improvement in his microalbuminuria status without any hypoglycemic episodes including his glycemic control as reported by the patient on post- Ramadan visit.

Discussion

The management of T2DM in this patient should include pre-Ramadan medical assessment with individual **risk stratification, medication changes, and Ramadan-focused diabetic education**.

The 2016 IDF Ramadan guidelines risk stratify patients based on various patient-related factors [2]. The patient here has **a very high risk** and exhibits poor glycemic control. The guidelines recommend that the patient should not follow Ramadan fasting. However, as he was willing to fast, pre-Ramadan diabetes counselling becomes essential.

The Ramadan-focused **diabetic education** should include [2]:
☐ Must ensure that he has adequate intake during suhoor

☐ Continue metformin 500mg at suhoor and Iftar