Is Scientific Production Problem-Oriented? Diabetes and Ramadan as an Example

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omething in the region of 1.6 billion Muslims are living throughout the world. Approximately 1.2 billion of them are over 14 years of age, and approximately 77 million of them are diabetic. Adult Muslims have to fast during the holy month of Ramadan, starting after dawn until dusk. Depending upon the geographic area, the Muslim may fast up to 18 hours per day for 1 month. Fasting owing to either deprivation of water and food. Diabetic patient's misguided use of medications during Ramadan can cause some acute and chronic complications. On the other hand, treatment by different diabetic agents among diabetic patients who want to fast should be changed. Nevertheless, it seems that there is a knowledge gap and the quantity and quality of evidences are insufficient to give satisfactory answers to the questions around this challenging issue.

The American Diabetes Association (ADA) 2005 and 2010 guidelines, which systematically reviewed relevant evidences were used in this study. Wherein, the content and the references of these guidelines were compared to determine how relevant and sufficient they are as an approach to a diabetic patient who fasts during Ramadan, and also if the 2010 guidelines contains any new and qualified study to give Muslims the opportunity to answer their last important questions that have not been answered by the 2005 guidelines.

In the 2005 guidelines, a tabulation of the risk category (very high risk, high risk, moderate risk and low risk) of patients with type 1 and type 2 diabetes who fast during Ramadan was included, and the same table was also inserted in the 2010 guideline. The second table that was again displayed in both of the guidelines has focused on possible changes that can be applied as treatment regimen in patients with type 2 diabetes who fast during Ramadan. It has been mentioned in both guidelines that recommendations given in these tables were largely based on expert and clinical opinion, and not on scientific data derived from clinical studies.

All essays which had been referred to in the 2005 and 2010 guidelines that are relevant to the complication of fasting in diabetic patients or appropriate treatment strategies were 22 in total, and the knowledge gap seen and most of them were not exactly relevant to the guideline issue. They have also investigated some critical advantages or disadvantages of fasting in diabetic patients such as hypo or hyperglycemia, BMI changes and reduction or elevation of HBA1c during the month of Ramadan; while the absence of studies that evaluate the risk of some micro or macro vascular complication of diabetes such as retinopathy, nephropathy, neuropathy, deep vein thrombosis (DVT), stroke or CAD (coronary artery disease) in fasting patients are obvious.

As an essential and feasible solution, Muslims should create a comprehensive registry system for their patients to give them an opportunity to track and be able to access their information, and commence prospective or retrospective studies whenever and however they want. Without a registry system, they need at least a 4000-participant cohort study during the month Ramadan and a month after that, to gauge the risks of fasting complications on diabetic Muslim patients. Without this system and without making reliable evidences, the questions will not be answered.

References


Sincerely,

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