



# The Personalized Nutritional Model for the Patients with Type 2 Diabetes Mellitus during Ramadan



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## Opinion

Fasting during Ramadan during the holy month is a sacred duty for Muslims. The Koran requires Muslims fasting during the month. However, there are exceptions; sick people should not adhere to the post. Diabetes is one of these exceptions. According to the precepts of the Holy Koran, one must fast, but not to cause harm to their health. This is a personal choice of the patient. So, in the classic study of the supervisory EPIDIAR (Epidemiology of Diabetes and Ramadan) held on the territory of 11 Muslim countries, it has been shown that 43 percent of Muslims with diabetes type 1 and 79% of patients with diabetes mellitus type-2 compliance with fasting during the month of Ramadan. According to the world statistics, the number of patients with diabetes mellitus, adhering to the Ramadan, ranges from 40 to 50 million [1].

In the light of contemporary perceptions of therapeutic and preventive medicine, there is a need to develop preventive tactics, affiliate and personalized therapy for patients who are willing to do. Identifying modifiable risk factors during fasting, which has a positive impact on the course of SD2 and hinders the development of severe complications of SD2 is the main task of the doctor. The motivation of the patient on the observance of the religious prescriptions contributes to the enhancement of patient compliance to receive medicines and active management of SD2 [1]. Important tasks, contributing to good quality control of glycaemia during Ramadan are as follows:

- A. Achieve positive dynamics of glucose
- B. Prevent dehydration
- C. Minimizing the number of hypoglycemia
- D. Achieve positive dynamics of lipid
- E. Exchange in the absence of a set of body
- F. Weight the absence of elevated blood pressure.

To achieve this goal, for 1 month before Ramadan to the therapeutic survey and learning, focusing on the rules of safe passage of religious fasting requirements, after which the patient is informed by a physician, close collaboration with the physician.

Actively participates in the selection of treatment options and lifestyle. Carrying out preventive and curative action in each individual case, in respect of each individual patient, based on individual genomic features (pharmacogenetics, professional impurities, lifestyle). Use of optimal glucose decreasing therapy (evaluation of the effectiveness and safety of incretin therapy) selection of personalized eating behavior model [2]. To create personalized methods of patients with diabetes mellitus, fasting in Ramadan, was based on the principle of the lifestyle of the inhabitants of the Highlands in Azerbaijan, which differ in longevity (120-140 years).

In a retrospective cohort assessment of long-livers revealed that they adhere to the rules of good nutrition on the composition, number of quota and the main components of food and eat and for growing agricultural products thawed or spring water. Living in mountainous areas and engaged in agriculture, Azerbaijanis' had a diet which more than meets standards of nutrition compared to a diet based on the use of a range of products in supermarkets. Westernization and urbanization imply renunciation of national dietary traditions, relevant principles of rational nutrition. Adherence to national food traditions is in sufficient use of Greens, fruits and vegetables contain flavonoids, vitamins and microelements.

The Caucasus Mountains are renowned for and the availability of thermal springs, which contain calcium, chlorine, magnesium, iodine. Particularly important in the composition of the thermal springs for prevention of diseases of the cardiovascular system is magnesium. Vital properties of magnesium are improved metabolism of heart muscle, the vasodilator effect and ability to reduce blood clotting. Potassium performs several important functions in the body and plays a leading role in the appearance and conduct nerve impulses. Also participates in the synthesis of proteins, ATP, turning glucose into glycogen. Potassium salt strengthens the walls of blood vessels, capillaries, especially of the heart vessels. Possessing antihypertensive effect, promotes the excretion of sodium and water from the body. Due to the presence of salts of potassium, sodium cannot accumulate in the blood and

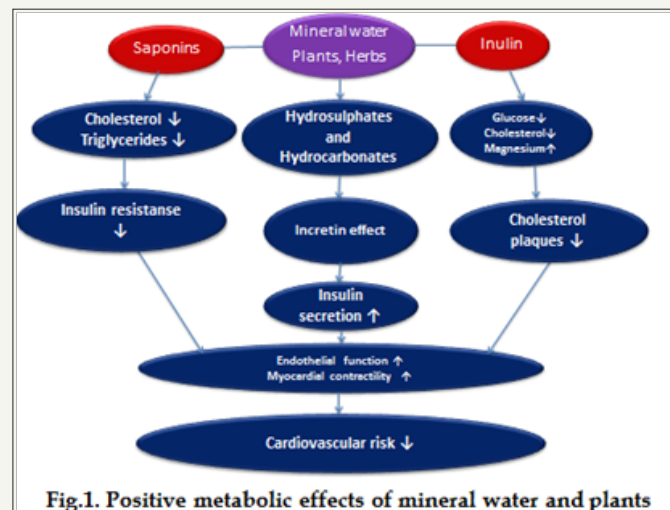
cells. Potassium contained in melt water and thermal springs, is a powerful hypocholesteremic trace mineral.

One of the valuable properties of the thermal springs of the Caucasus is the presence of hydrogen sulphate and hydrocarbons, which have proven capable of stimulating effect of incretine according to the modern view; mineral water implements its therapeutic effect by incretine effect, activating the entero-insular axis. A daily admission before Suhoor and Iftar for 2 capsules before cumin oil composed of Omega 3, Omega 6, Omega 9, amino acids, phospholipids, saponins, flavonoids, vitamins A, E, D, C, B, trace elements potassium, sodium, phosphorus, calcium, manganese, iron, zinc, copper.

At the time of Suhoor to use of soft drinks (mineral water, tomato juice, green tea from the leaves of the sophanine containing plant; blackcurrant, peppermint, cinnamon, Hawthorn, dog rose, flax, Zhen-anti-pollutant treatments) [3]. During Suhoor: 100g low fat cottage cheese, salad, seasoned with walnut oil and lemon, green beans, dressed with a simple yogurt, lentils, oatmeal, red or brown

rice without salt. Such a diet prevents dehydration, all necessary for the organism vitamins and minerals, creates a feeling of satiety [4]. During Dinner with meat and fish dishes to add a insulin containing products (onion, garlic, onion, asparagus, artichoke, dandelion). Insulin reduces glucose, cholesterol, triglycerides, improves absorption of zinc required for insulin secretion, magnesium, needed for the heart, splitting cholesterol plaque is an anticoagulant and improves immunity [5].

To prevent dehydration of the body requires acceptance of herbal baths (coniferous, wormwood, wild rose, mint, lemon, Chamomile, rose, Celandine, succession, nettle. The skin is involved in the regulation of water-electrolyte balance. On the one hand, on the surface of the skin with sweat secreted sugar that clog the pores and breaks the cellular respiration, and on the other hand, the body suffers from dehydration When you add in the bath herbal extracts, its therapeutic properties have been increasing significantly. The human body is affected not only by thermal and mechanical factors but bioactive substances contained in plant extracts (Figure 1).



**Figure 1:** Positive metabolic effects of mineral water and plants.

## Conclusion

I would like to say that the precepts of the Holy Koran, one must fast, but not to cause harm to your health

## Acknowledgement

Ziba Akhmadova has her expertise in evaluation and passion in improving the health and wellbeing. Her open and contextual evaluation model based on responsive constructivists creates new pathways for improving healthcare. She has built this model after years of experience in research, evaluation, teaching and administration both in hospital and education institutions. The foundation is based on fourth generation evaluation (Guba & Lincoln, 1989) which is a methodology that utilizes the previous generations of evaluation: measurement, description and judgment. It allows for value-pluralism. This approach is responsive to all stakeholders and has a different way of focusing.

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