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A case report on dietary management of a patient with type 2 diabetes mellitus

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Abstract
Type 2 diabetes mellitus is characterized by excessive glucose in blood circulation do to insulin action, insulin secretion or both (or) hyperglycemia with disturbances in carbohydrates, fat and proteins do to insulin resistance, insulin secretion or both. The case report showed that type 2 diabetes mellitus can be permanently cured with dietary management. Diabetes mellitus (type 2) aetiology is obesity, lack of exercise, food habits and stress. The obesity can cure within fifteen days with this diet program (table 1, 2, 3). This diet called as Ketone diet. If inhibit the carbohydrate in taken (decrease glycolysis and glycogenesis), the peripheral free fatty acids and cholesterol will be utilize in to energy – leads to decrease of visceral fat.

Keywords: Type 2 diabetes mellitus, diet, management, outcome

Introduction
Diabetes Mellitus (DM) is characterized by chronic hyperglycemia with disturbances of carbohydrate, fat and protein metabolism resulting from defects in insulin secretion, insulin action or both [1]. When fully expressed diabetes is characterized by fasting hyperglycemia, but the disease can also be recognized during less overt stages, most usually by the presence of glucose intolerance. The effects of diabetes mellitus include long term damage, dysfunction, Failure of various organs especially the eyes, kidneys, heart and blood vessels [2] and also occur blindness, stroke and amputations [3]. Diabetes may present with characteristic symptoms such as thirst, Polyuria, blurring of vision, weight loss and polyphagia and its most sever forms with ketoacidosis or nonketotic hyperosmolarity which in the absence of effective treatment leads to stupor, coma and death.
Often symptoms are not severe or may even be absent. Hyperglycemia sufficient to cause pathologic functional changes may quite often be present for a long time before the diagnosis is made. Diabetes often is discovered because of abnormal results from a routine blood or urine glucose test or because of the presence of a complication. During the evolution o type $_1$diabetes, for example immunologic disturbances such as islet cell or other antibodies are present and these may precede clinically apparent disease by months or even years [4].
In some families it is possible to recognize certain gene mutations that are strongly associated with certain forms of diabetes such as variations in the glucokinase gene or hepatic nuclear factor genes that cause youth or early adult onset diabetes [5]. The majority of cases of diabetes fall in to two broad etiopathologenetic categories now called Type $_1$ and Type $_2$ diabetes mellitus [6, 7]. But the extent of heterogeneity among these types remains uncertain. Because of the increasing number of forms of diabetes for which a specific aetiology can be recognized the current clinical classification proposed by the American Diabetes Association (ADA) in 1997. Type $_2$ diabetes mellitus can be manage with diet and lifestyle modification [8, 9]. The present case report (evidence proof) is that to know more about diabetes mellitus cured by my diet program.

Case presentation
TN, a 46 year old man was first diagnosed as having type 2 diabetes mellitus at a primary health clinic 7 years ago. At the time of diagnosis, his random blood sugar (RBS) was 370 mg/dl, blood pressure was 140/90 mm of Hg height 5.7″ and weight 120 kgs. He was started on glipizide tablets. During the next five years, his blood sugar levels remained uncontrolled with fasting blood sugar (FBS) levels ranging from 190 mg/dl. The dosage of glipizide was progressively increased and later Metformin was added. Despite this, the patient's diabetes remained uncontrolled and later months,

He was also diagnosed to have hypertension and hypercholesterolaemia (cholesterol level was 358 mg/dl, with elevated low density lipoprotein (LDL) of 208 mg/dl. High density lipoprotein (HDL) level was 34 mg/dl). The patient was started on anti hypertensive (tab. Telma H) to control his blood pressure, started treatment for the hypercholesterolaemia (Tab. Atorvastatin 20mg per day). Despite being on regular treatment and follow up, he continued gaining weight and his diabetes was never well controlled. He was referred to a hospital months ago for uncontrolled diabetes. At that time, his fasting blood sugar (FBS) was 400 mg/dl. Random Blood Glucose was 300 mg/dl and HbA1c was 10.07%. He was diagnosed as having uncontrolled diabetes mellitus (type 2). However all electrolyte levels, serum albumin and albumin globulin ratio were normal. Despite being on medication, TN's diabetes was not well controlled and he developed complications (hypertension, hypercholesterolaemia). Although doctors who attended to him gave him dietary advice, his weight progressively increased and he had become obese. Discussions with the hospital dietician during TN's case taking revealed that TN had not really attempted to change his diet that was high in fat and carbohydrates. Further sessions between dietician and TN's wife revealed that TN loved home cooked food and would get angry if his wife did not cook tasty and glucose food. His usual meals for the day would be chicken biryani for breakfast, followed by chicken soup for mid morning fruit juices, rice with 2–3 pieces of chicken /meat / fish for lunch, a multiple variety of biscuits for tea time and again biryani rice for dinner. His favorite drinks were coca cola, thumbs up and other types of sweet drinks. He felt that taking his medication regularly was enough to control his illness and he was not worried about his increasing weight gain.

Management of Diabetes in This Patient

The physicians at the hospital modified TN's medication. In addition to new diabetic medication (he was started on glipizide + metformin bd), he was given medication for his hypertension, hypercholesterolaemia. In addition to these medications, TN and his wife were also counselled by the hospital dietician on a monthly basis. Also no change in TN physical and blood values also. Taking into account TN's multiple diseases, my team drew up a diabetic menu for him. Before my diet program starting TN values are total cholesterol: 350 mg/dl, triglycerides: 510mg/dl, LDL: 200mg/dl, HDL: 30 mg/dl, VLDL: 40 mg/dl, HBA1C: 10.7% (figure 1). The main aim of the diet was to control his diabetes and hypercholesterolaemia. He was not put on any strict protein diet. However, he was advised to control the amount of carbohydrates in his food. TN's wife was educated on healthy cooking with no carbohydrates, and also told to monitor TN's diet. TN had to completely stop carbohydrates and more fat, protein. His wife was advised to use oil like coconut oil, olive oil, butter, cheese in place of the refund oil that she had been using. Recommendations given to TN and wife were: fish, only sea salt, home masala, 6 eggs per day, skinless chicken, very lean meat and do not eat all carbohydrate foods like rice, chapatti, sweets, raw banana, fruits, beet root, potatoes, all refined oils, sugar, milk, corn, bread, elephant yam, sweet potato, tapioca, green peas, colocasia, sweet corn, curd, ice creams, fruits, fast foods, sweets, cold drinks, panner (not more than 70 grams), carrots, carbohydrate contain vegetables, panner, tomatoes and onion (more than 3/ day) along with fruits also. His wife finally changed his diet by modifying her cooking following my counselling. In addition to this, TN was also counselled regarding his steps (Table 3), liquid and solid diet program. He was advised to have food only on hungry (eat as you wish when TN feel hungry, should not eat for every hour or two, eat when TN feel really hungry (when body asks TN to eat).

TN did first ten days liquid diet program (Table 1) and later on 20 days solid diet program (Table 2). After ten days liquid diet program, his FBS had reduced to 160 mg/dl, PPBS was 300 mg/dl and HbA1c was 9.0 %, total cholesterol: 250 mg/dl, triglycerides: 300mg/dl, LDL: 150mg/dl, HDL: 40 mg/dl, VLDL: 30 mg/dl (figure 2). After twenty days of solid diet program, his total cholesterol: 182 mg/dl, triglycerides: 140mg/dl, LDL: 91 mg/dl, HDL: 68 mg/dl, VLDL: 28 mg/dl and FBS was 87 mg/dl, PPBS was 130 mg/dl, Hba_1c was 6% (figure 3). The outcome in TN's case was extremely good. Not only did this change in diet manage to control his blood sugar and cholesterol levels, but also he came to body weight 70 kgs (before treatment 120 kgs),

A well planned low carbohydrate diet (no carbohydrates) can actually lead to a better cholesterol profile, not a harmful one. I obese patients, a ketogenic diet has been shown too significantly (within 24 weeks): decrease weight, decrease BMI, decrease total cholesterol, Triglycerides, increase HDL levels and decrease LDL levels. A ketogenic diet eliminates glucose creating foods that can cause inflammation and damage to the arteries. Since your body has less glucose available to make cholesterol, total cholesterol levels will drop. You can also expect a drop in triglyceride levels, as eating carbohydrates spikes your triglyceride levels. So, a great decrease in carbohydrates means lower triglyceride readings. Ketogenic diet means low carbohydrates, high fat and medium protein.

Table 1: Liquid Diet Chart

Liquid	Quantity Per Day
lemon juice	3 to 4
coconut oil/ghee/butter/olive oil/milk cream/cheese)	70 grams
Water	4-5 litters
All vegetable soup	½ - 1 litter
Green Tea	2 – 3 times/day

* Result can be depending up on individual.

Table 2: Solid Diet Chart

Food	Quantity Per Day
coconut oil/ghee/butter/olive oil/milk cream)	70 grams
Boiled eggs	5 – 6
Dry fruits (Almond, pista, accurate, pumpkin seeds, water melon seeds, sun flour seeds, flax seeds, sesame seeds)	7 – 10
Non veg/ veg (drum stick leaves, sorrel leaves, fenug reek, spinach, amaranth, Malabar spinach, coriander leaves, cabbage, cauliflower etc.,)	250 – 300 g

* Result can be depending up on individual.

Table 3: Steps of Diet Chart

Steps	Per Day Required
Step 1	Every individual should take 3 to 4 lemon juice (can take with water or butter milk without salt). Preparation of butter milk should be two spoons curd and one liter water.
Step 2	70 grams direct consume fat (coconut oil/ghee/butter/olive oil)
Step 3	Should drink 4 liters of water
Step 4	One multi vitamin/day

* Result can be depending up on individual.

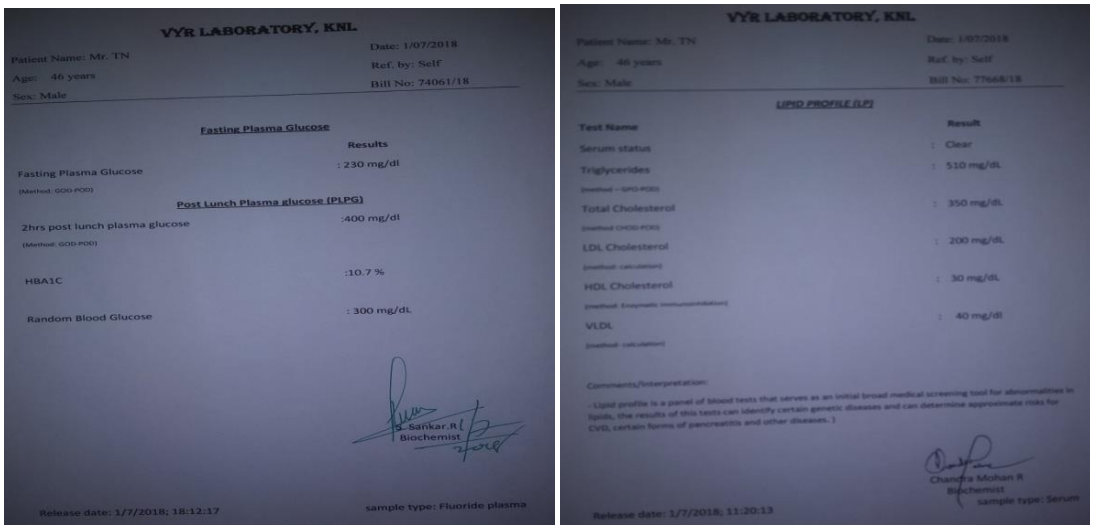

Fig 1: Before diet program

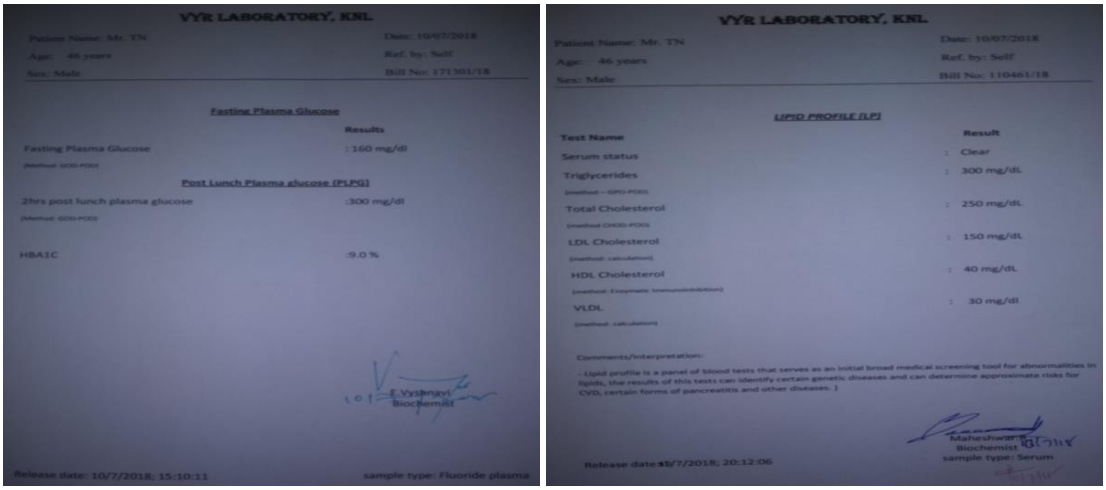

Fig 2: During diet program

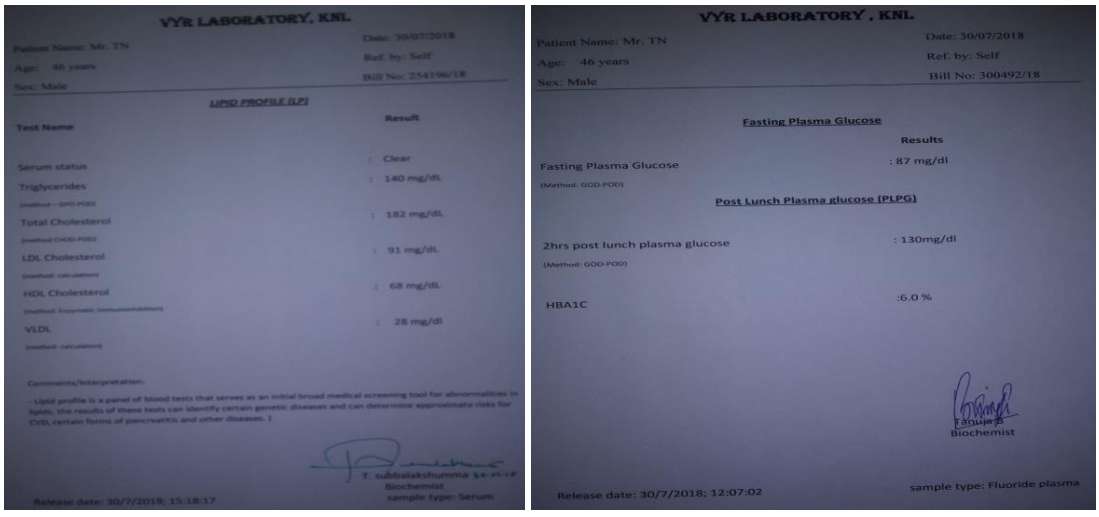

Fig 3: After diet program

Conclusion

However, adopting healthy lifestyle practices is not easy as revealed in this case. Patients and their families need to be supervised personally and counselled regularly. Healthy lifestyle habits such as maintaining a balanced diet, ideal body weight and physical activities need to be cultivated and Practised. Dietary counselling sessions need to be implemented, preferably by my diet program as this has been shown to be effective in motivating diabetic patients to achieve a better food choice, as well as better glycaemic, lipid and weight control, as shown in this case.

Obesity, type 2 diabetes mellitus, hypo and hyper thyroidism, PCOD can cure permanent with my diet program (result will be depended up on individual).

References

1. Arora S, Ojha SK, Vohora D. Characterisation of Streptozotocin induced diabetes mellitus in Swiss Albino mice. Glo J of Pharmacol. 2009; 3(2):81-84.
2. Ismail MY. Clinical evaluation of antidiabetic activity of *Trigonella* seeds and *Aegle marmelos* Leaves. Worl Appl Scien J. 2009; 7(10):1231-1234.
3. Jothivel N, Ponnusamy SP, Appachi M. Antidiabetic activities of methanol leaf extract of *Costus pictus* D. Don in alloxan-induced diabetic rats, J of health sci. 2007; 53(6):655-663.
4. Rewers M, Norris JM, Eisenbarth GS, *et al*. Beta cell autoantibodies in infants and toddlers without IDDM relatives: Diabetes Autoimmunity study in the young (DAISY). J Autoimmun. 1996; 7:405-410.
5. Almind K, Doria A, Kahn CR. putting the genes for type II diabetes on the map. Nat Med. 2001; 7:277-279.
6. Gavin JR, Alberti KGMM, Davidson MB. Report of the expert committe on the Diagnosis and classification of Diabetes Mellitus. Diabetes Care. 1997; 20:1183-1197.
7. WHO consultation Group. Definition, diagnosis and classification of diabetes mellitus and its complications, 2nd ed. Part 1: Diagnosis and classification of diabetes mellitus WHO/NCD/NCS/99. Geneva. World Health Organization. 19987; 10:164-169.
8. Bastaki S. Review Diabetes mellitus and its treatment. Int. J Diabetes & Metabolism. 2005; 13:111-134.
9. Dixit VP, Joshi S. Antiatherosclerotic effects of alfalfa and injection in chicks: A biochemical evaluation. Ind. J of Physiol & Pharmacol. 1985; 29:47-50.