

A Case Study on Successful Dietary Management of a Case of Diabetes Mellitus Type II

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ABSTRACT

In developing countries because of rapid pace of growth as a result of urbanization and industrialization there has been transition in disease pattern. Communicable diseases are being replaced by non-communicable or life style related diseases like diabetes, obesity, cardiovascular disease and cancer. Diabetes represents a spectrum of metabolic disorders, which has become a major health challenge worldwide. The unprecedented economic development and rapid urbanization in Asian countries, including India is major cause of above changes in disease pattern. Urbanization is occurring rapidly on the Indian subcontinent. Lifestyle change involving major changes in dietary pattern, decreased physical activity due to improved transportation the availability of energy saving devices, and the high level of mental stress are associated with modernization. The prevalence of diabetes is rapidly rising all over the globe at an alarming rate. Diabetes is pandemic in both developed and developing countries. Until a decade ago diabetes was not considered as a major public health problem in developing countries like India, but the situation has now dramatically changed. India leads the world today with the largest number of diabetic patients. The rampaging diabetes will impose a huge economic burden on India and other countries. The knowledge attitude and practice play a very important role on diabetic patients and their family members, by improving their quality of life.

Key Words : Urbanization, Modernization, Knowledge, Attitude, Practice

INTRODUCTION

Diabetes mellitus is one of disease which is related with lifestyle disorder. It is one such disease which is causing serious problems to human health. Around 700 million people around the world have been diagnosed with diabetes. According to "WHO" statistics diabetes is the sixth leading cause of disease related death in the world. Diabetes therefore can be defined as a syndrome of disordered metabolism of carbohydrate, protein and fat with the manifestation of persistent hyperglycemia due to an absolute deficiency of insulin secretion or a reduction of its biological effectiveness or both. Long term association of this disease may lead to neuropathy and nephropathy complications. If a patient follows dietetic regimen of a particular disease, he does not need to take

medicine, on the contrary if he does not obey the same there is no sense in giving him a treatment.

Diet:

Nutrition is coming to the fore as a major modifiable determinant of chronic disease, with scientific evidence increasingly supporting the view that alterations in diet have strong effects, both positive and negative, on health throughout life. Diabetes is closely linked to diet and nutrition. A carefully planned diet is one of the major tools in the management of diabetes. The general health as well as disease is depended on food. The wholesome food and unwholesome food is responsible for happiness and misery respectively. The distinction between health and disease arises as the result of difference between the pathya and apathya.

Case Presentation:

A 57 year old male patient with MRD No. 2241463 came in OPD of Kayachikitsa S.S.L. Hospital, BHU Varanasi on 20.07.2018 from Bacchaw Varanasi. Patient was known case of diabetes and came in OPD for the consultation and management of irregular blood sugar management. After taking proper history and physical examination and investigation, we advised dietary management and physical exercise.

Bio-profile:

Name of Patient	-	Shashi Kant
Age	-	57
Sex	-	Male
MRD No	-	2241463
Address	-	Bacchaw, Varanasi
Diagnosis	-	DM type 2
Informants	-	Only patient

Family History:

Shashikant lives with his wife who is 52 years old and have four children. In the past his wife had encouraged him to treat his diabetes with herbal domestic remedies and weight loss supplements. He used all these but of no use and his sugar level was never maintained. Then after he decided to consult properly and start regular treatment.

Past History:

Recently diagnosed for Diabetes Mellitus II, No history of T.B, HTN (Hypertension), Bronchial asthma or any other illness and no any surgical procedure. Patient is sober in nature and no history of alcohol or tobacco intake.

Diet History:

Patient diet history reveal excessive carbohydrate intake in the form of rice and bakery products.

Objective of case study:

- To share experience and knowledge with friends.
- To get feedback from the supervisor and friends for further improvement and management of disease.

Selection of case study:

- DM is commonly seen disease in our country.
- Selected this case as to learn in depth about the disease.
- To gain knowledge about the disease.

- To identify the major complications of diabetes

I Visit Vitals:

Bowels- regular and clear, Appetite- good, Diet- mixed

Examination:

Pulse – 72/min
B.P – 110/70 mmhg

D/H/O:

No medication taken yet.

Investigation Reports:

18.06.2018 – RBS – 340 mg/dl
21.06.2018 – FBS – 173.6 mg/dl
19.07.2018 – RBS – 200mg/dl

Table 1 :

Vital	First Visit 20.07.2018	First follow up 07.09.2018	Second follow up 16.10.2018
B.P.	110/70mmhg	110/90mmhg	120/80mmhg
Pulse	88/min	76/min	82/min
Respiration	16/min	20/min	20/min

Table 2 :

Investigation	Initial Findings 20.07.2018	First follow up 07.09.2018	Second follow up 16.10.2018
FBS	173.6 mg/dl	106.6 mg/dl	97 mg/dl
PPBS	293.4 mg/dl	127.3 mg/dl	
HB	-	-	12.5 g/dl
HbA1C	-	-	6.4 %
Mean Plasma Glucose	-	-	137 mg/dl

Treatment:

It is based on diet, food habits, diet restrictions and exercises only. No medication is advised for the treatment.

Management of my patient:**Diabetic Diet :**

Diet is important in both type-I and type-II diabetes effective dietary management may be sufficient to control the disorder. The main aim of study is to maintain a normal blood sugar level.

Advised the patient about what kinds of foods he should eat and how to space his meals to avoid going too

long without food. The number of calories allowed is totally based on his physical health whether he needs to maintain loss or gain weight.

Advised diet plan a diet that includes a lot of CHO (low GI foods) and high fiber food and minimizes the intake of sugar rich foods. Avoid the excess food intake and control the body weight.

Exercise:

Exercise is very important in Type-II diabetes. A good exercise programme can help to control blood sugar level. However the need of patient to adjust the insulin dose according to the amount of exercise. Patient agreed to morning walk one hour daily. Advised the push up, triceps exercise, aerobic and light stretching.

Discussion:

Patient is suffering from diabetes and if this condition is not properly treated or taken care of, he may become victim of cardiac and chronic kidney disease.

The first target for dietary counselling was to look after and select the most dominating health problem. Patient stated that along with his care about high glucose level, weight loss is also important for him. Patient already had some information about diet plans to reduce body weight as he is well aware that his weight is a major cause of his problem.

He was also aware that high intake of bakery products are the source of his high glucose levels and one week before coming for dietary consultation he himself reduced the bakery products intake by one third.

Conclusion:

Provided Table 1 and Table 2 are clearly showing the extremely good results and this diet plan not only managed his blood sugar but his weight was also on reducing trend. After three month of intense counselling and diet plan, his FBS became 97 mg/dl and HBA1C was 6.4%. Government of India under ministry of health and family welfare had also launched healthy lifestyle and diabetes campaigns. To aware to healthy life style is not an easy task, because in general people are lazy and ignorant about this personal supervision and counselling plays most vital role in this dietician, as shown in this case are more effective motivating diabetes patients to achieve normal blood sugar and maintain optimum body weight at the same time.

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