

Knowledge and Attitude of Diet in Type 2 Diabetes in Low Socioeconomic Group

U R Raaju, Naveena Brid, Sahana

Department of Medicine, J J Medical College, Davanagere, Karnataka, India.

Abstract

Introduction: India has over 50 million diabetics, a great socio-economic burden due to associated mortality and morbidity. As diet has pivotal role in management, good knowledge and its correct practice is vital for management of diabetes.

Aim: To study the knowledge and practices of diet in type 2 diabetes belonging to low socioeconomic group.

Methodology: 100 diabetic patients attending OPD at chigetteri hospital with low socioeconomic group. They were interviewed based on questions prepared for the study.

Results: 100 patients both male and female were interviewed. Their knowledge about diabetes status is poor, 92% believed that diet modification would help in control of diabetes but only 51% followed some restrictions. Patients educational background was very poor which might have contributed for their reluctance and ignorance. Patients received knowledge and information about diabetes from the treating physician. There were no educational programmes to teach them about the disease or its management.

Conclusion: There is urgent need for diabetes education programmes. If this generation is educated about diabetes and prevention of complications, future generation will be free of the disease.

Key words: Diabetic diet, diabetic patient education.

Introduction

You are what you eat is a popular saying which holds good even in these modern days. Diet plays vital role in both health and disease especially in diabetes. Concept of diet in diabetes is changing. Initially the food was classified as high in carbohydrates and low in carbohydrates, where in food items with low carbohydrates were recommended, later came diet with low glycemic index which was recommended. Presently food stuffs with low glycemic load are preferred for diabetics. These changing trends make it more confusing about diabetic diet. Dr. Rakesh Sharma President and Director of Indian diet association advised diabetics to eat whole grain, oats, Pasta, Noodles with vegetables and sprouts, high fiber diet like broccoli, peas and spinach, high fibre fruits like papaya, apple, pear and orange [1]. This advice holds good for urban and middle class society. What diet should be advised to diabetic patients belonging to low socioeconomic group? News media,

television, medical camps and special write ups educate general population about health and disease and diabetes too. In villages where most of the patients are uneducated, what would be the awareness and knowledge of the disease and about diet? With this back ground we took up the study to assess the knowledge and practice of diet in diabetes, in low socioeconomic group.

Materials and Methods

The study was conducted at medicine outpatient department in chigetteri Government hospital, Davanagere for a period of five months April to August 2011. An informed consent was taken from the patients before including them in the study. All patients were from low socioeconomic group based on B V Prasad [2] classification. Patients were interviewed based on a structured questionnaire prepared for the study. The questionnaire had three sections the clinic demographic section with age and

Address for correspondence

Dr. Naveena S. Brid, Department of Medicine
S. Nijalingappa Medical College, Bagalkot-587102. Karnataka, India.
E-mail:-drnaveenabrid@gmail.com

sex of patients his occupation, Body Mass Index (BMI) and educational status in other section knowledge about diet section patients views about diabetics, about diet, spacing was tested third section had questions regarding management diet, drugs or exercise.

Results

100 patients both male and female were randomly selected for the study.

Age and Sex

Mean age of the patients was 64 years in men and 58 in women. 31% were male patients and 69% were female, ratio being 1.2

Educational back ground

47% were illiterates, 39% went to primary school, 11% had high school education and 8% of them attended college. BMI: 53% were overweight and 9 were obese. Patient's knowledge, awareness and attitude towards diabetes and diet was grouped into this section and tabulated. It is disturbing to know that patients knowledge about diabetes, diet and management is very poor 25% thought diabetes is hereditary, 50% thought overeating results in diabetes white 25% blamed day to day tensions. All 100 patients consumed rice as staple diet and occasionally supplemented with Ragi (60%) wheat 20% Jowar 20%. 95% patients know about diet restrictions that control diabetes however 51% followed some form of diet modifications, which shows patients reluctance for dietary adjustments. 66% believed that drugs alone can control diabetes 7% thought diet and 18% said exercise diet and drugs are necessary for control of diabetes.

Discussion

This study brought out the fact that many diabetic patients especially those from rural areas in low socioeconomic group are ignorant about diabetes as a disease and have lot many misconceptions about diet and management of diabetes. Naheed Gul in his study of 100 diabetic patients concluded that because of lack of understanding of disease, most of the patients suffer from complications [3]. Deepa Mohan et al in her study of patient's population from urban Chennai found that awareness about diabetes and knowledge about diabetes management was poor [4]. It was observed that female patients were more than male

patients. This was also found in study conducted in Turkey[5]. Similar findings were present in study done in China and Pakistan [3]. In Britain male domination was seen. The significance is not known probably women are more health conscious than their counter parts. 95% of patients know that diet restrictions are needed for control of diabetes but only 51% practiced some form of diet modification. All 100 patients had rice as staple food occasionally. Rice has both high glycemic index as well as high glycemic load. Supplementation with Ragi, Jowar or wheat makes it fibre rich and provides more nutrition. This message should be given to all diabetics regularly. Patient's educational status being poor may also contribute to their ignorance. "If diet is queen, exercise is king" This saying stresses the importance of exercise over diet. Silver Spring, studies proved that regular exercise can prevent diabetes. In our series only 18% said that exercise may help in diabetic control [6]. For all patients in our study "Walking" was only form of exercise they knew. In western countries special programmes are conducted to educate patients about diabetes its management and prevention. In our section all patients, treating physician and patient's friends were source of diabetic education [7]

Table 1. Clinico demographic profile

MEAN AGE: Male - 64 Years Female 58 Years
SEX: Male 31% Female 69%
BMI: Normal 38% Overweight 53% Obese 9%
OCCUPATION: Agriculture-30% Labourer-29% Home maker-30% Miscellaneous- 11%

National Diabetic Education programmes Finnish diabetes prevention programme [8], Da Quing study [9] spread the message that “diabetes is preventable” If this generation is educated about prevention of diabetes the future generation shall be free of diabetes. “Know what to eat how much to eat and when to eat” Wise food choice can help to feel good every day, loose weight if you need to, lower risk for stroke and IHD and other complications [5]”

Table 2. Educational back round

Illiterate	: 47%
Primary school	: 39%
Secondary school	: 11%
College	: 03%

Table 3. Knowledge about diet in diabetes

Cause of Diabetes	
A) Hereditary	25%
B) Over eating	50%
C) Tension	25%
Staple diet	
Rice	100%
Supplement diet	
A) Ragi	60%
B) Jowar	20%
C) Others	20%
Spacing of meals	
Whenever hungry	60%
05 06 hours	40%
07 08 hours	-

Table 4. Knowledge about management of diabetes

A) Drugs only	66%
B) Diet	7%
C) Exercise	9%
D) All are the causes	18%

Conclusions

1. India is diabetic capital of world but sadly its population does not have basic knowledge about disease or its management leave alone about complications of diabetes and its prevention.
2. Diet and exercise are as important as drugs and insulin in management of diabetes. Diabetes patients should be educated about it.
3. There is urgent need for diabetes education programmes. World wide education programmes made an impact in prevention of diabetes. If this generation is educated about diabetes and prevention of complications, future generation will be free of the disease.

Acknowledgements

This study was done as part of Indian Council of Medical Research (ICMR) student scholarship. We thank ICMR supporting us. I thank Dr. Manjula R Assistant Professor for helping us with statistics. I also thank Mr. Siddalingayya Math department clerical staff for typing the manuscript not once but many times after corrections.

References

1. Rakesh Sharma. Diabetic Diet For Indian – expert advice. Times of India 2013 April 20th.
2. Park K. Park's Textbook of Preventive and Social Medicine. 21 Edition. Jabalpur. BANARSIDAS BHANOT PUBLISHERS; 2011.
3. Naheed Gul. KNOWLEDGE, ATTITUDES AND PRACTICES OF TYPE 2 DIABETIC PATIENTS. J Ayub Med Coll Abbottabad 2010;22(3): 128-131.

4. Deepa Mohan, Deepa Raj, Shanthirani CS, ManjulaDatta, Unwin NC, Kapur A, et al. Awareness and knowledge of diabetes in Chennai - the Chennai Urban Rural Epidemiology Study [CURES - 9]. Journal of the Association of Physicians of India 2005; 53: 283-287.
5. Arslantas D, Unsal A, Metintas S, Koc F. Knowledge of Diabetic patients about Diabetes at the primary stage in Eskisehir, Turkey. Pak J Med, Sci 2008; 24(2):263-268.
6. American diabetes association. Standards of medical care in Diabetes. Diabetic Care 2009;32 (supp (1):1513-516.
7. Baradaran HR, Knill- Jones RP, Wallia S, Rodgers Al. A controlled trial of the effectiveness of a diabetes education programme in multi-ethnic community in Glasgow. BMC Public Health 2006;6:134.
- 8 Delice Gan. A Diabetes Programme in Action. Appendix 2: ST. Vincent Programme. In: Development Programme for the Prevention and Care of Diabetes in Finland. Tampere: Finnish Diabetes Association; 2001. Available at:
http://www.diabetes.fi/files/200/Development_Programme_for_the_Prevention_and_Care_of_Diabetes_2000_2010_pdf_910_kB.pdf. Accessed 2013 April 15th.
9. Pan X, Li g, Hu Y, Wang J, Yang W, An Z. Effects of diet and exercise in preventing NIDMM in people with impaired glucose tolerance. The Da Qing IGT and Diabetes Study. Diabetes Care 1997; 20: 537-544.

Source of Support : Nil

Conflict of Interest : None Declared