ORIGINAL RESEARCH PAPER
VOLUME-6 | ISSUE-7 | JULY-2017 | ISSN No 2277 - 8179 | IF : 4.176 | IC Value : 78.46
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

PROBLEMS FACED BY THE DIABETIC NEPHROPATHY PATIENTS ON HEMODIALYSIS

Diabetology

Anjali — Senior Research Fellow, Department of Food & Nutrition, Lady Irwin College, Delhi University, New Delhi, India. - Corresponding author

Veenu Seth — Retd. Faculty, Department of Food & Nutrition, Lady Irwin College, Delhi University, New Delhi, India.

Divya Tripathi — Senior Research Fellow, Department of Food & Nutrition, Lady Irwin College, Delhi University, New Delhi, India.

ABSTRACT

Aim: Diabetic nephropathy is one of the complications of diabetes which causes depression, anxiety among the patients as its management is quite tiresome. This study assessed the problems faced by diabetic nephropathy patients undergoing haemodialysis, in view of scanty data in India in this area.

Methods and Material: The study was conducted on thirty diabetic nephropathy patients (40-75 years) undergoing haemodialysis at Dialysis unit, of Max Healthcare, New Delhi, based on informed consent and ethical clearance. Demographics and problems faced by the patients were assessed using the pre-tested structured questionnaire. The data was analysed using SPSS Statistics 20..0 as the statistical software.. The analysis was done on the basis of frequency distributions and percentages..

Results: Salient findings of the study revealed that the patients faced problems in a fluid, salt and sugar restriction, and several psychosocial problems.

Conclusions: The findings provide a preliminary database for addressing psychological issues so that overall and dietary management in these subjects can be improved.

KEYWORDS:

Diabetes, Diabetic Nephropathy, Haemodialysis, ESRD

Introduction:

Diabetes mellitus is a disorder of glucose metabolism, but it can be so much for the individuals and their families with whom they share their lives. It is associated with an increased risk of diabetes complications like ESRD, distress, depression, anxiety and several eating disorders which are associated with malnutrition in the ESRD patients which lead to morbidity and mortality. The association between mental illness and diabetes has been recognised for several years. In the 17th century, Thomas Willis, a founding member of the Royal Society, described how "*Diabetes is a consequence of prolonged grief*". Diabetes and depression occurred about twice as often as would be offered only by chance. This combined diabetes and clinical depression are a major challenge as these conditions are linked with each other(Holt, De Groot, & Golden, 2014). Symptoms of depression affect up to a third of people with diabetes and also the bad quality of life, but also in contributing to the difficulties encountered in the self-diagnosis of diabetes. However, it is often ignored yet essential component of diabetes care [2,3]. Therefore in order to protect the patient from its complications, a well-integrated medical team is required. Nevertheless, health care facilitators often face challenges in addressing both general and serious psychological problems in their patients due to lack of understanding and lack of sensitivity towards these issues which can influence patient's response to intervention. Henceforth, the study was taken to assess the problems faced by diabetic nephropathy patients undergoing haemodialysis.

Subjects and Methods:

This cross-sectional pilot study was conducted in a super speciality hospital in New Delhi, India to identify the problems faced by the diabetic nephropathy patients undergoing haemodialysis in their dietary management. Thirty such patients aged 40-75 years, undergoing haemodialysis for about 1-3 years were selected via purposive sampling. Background information and diet related problems faced by subjects of the patients were collected through a pretested questionnaire. The data was analysed using the statistical software SPSS vs 20.0.

Ethics: Ethical clearance was obtained from the institutional ethical committee of Lady Irwin College, New Delhi for the study. Written consent for participation was obtained from the subjects.

Results and Discussion:

Sample demographics

A total of 30 patients who were visiting the OPD during the period of the study were recruited for the study. As shown in figure 1 majority of the subjects (15 males, 5 females) were in the age range of 55-65 years, with fewer subjects in the 45-55 years age range. A total number of male subjects was 23 and only 7 were female patients.

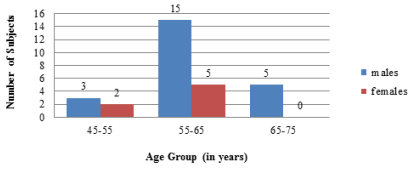


Figure 1: Gender Wise Distribution of Patients (n=30)

Education level

All 30 subjects were literate. Three subjects (10%) had education till intermediate and 24 subjects (80%) were graduates, with one being post graduate. The remaining 2 had education till middle school and high school, respectively, but could read and understand English.

Occupation and Family Income Profile

Twenty patients were retired from service (66.7%), 3 were businessmen (10%) and remaining 7 adults females were housewives. Most of the subjects had a monthly family income of Rs. 25,000 and above with 20% having income over Rs. 100,000. Only 2 patients had a monthly income of < 25,000. Only those diabetic nephropathy subjects, who could afford dialysis, visited the nephrology dialysis unit.

Family size

About half of the subjects (53%) had the family size of 2-3, followed by 30% of the subjects who had the family size of 4-5 rest had more than 6 members (17%).

Problem faced

Patients on haemodialysis experience many medical, psychological and emotional stresses. They suffer from severe income loss being on dialysis treatment. Thus various areas where problems existed were investigated to provide an insight into the area where counselling needed to be focused. The disease profile, anthropometric measurements, biochemical parameters and dietary intake are mentioned in the previous study published .

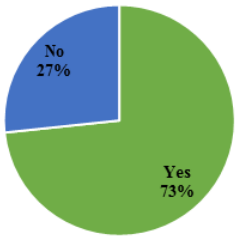


Figure 2: Percentage of people having problems in adjustment

Problems in adjustment

As it can be seen from Figure 2 majority of the subjects (73%) had experienced problems in adjustment with respect to the following: dietary modifications, insulin administration, social and psychological adjustments. This suggested that these subjects needed proper counselling and support in these areas

Problem areas

When the specific area of problem was investigated, the majority of the subjects (n=30) faced psychological problems (Figure 3), followed by 20 subjects reporting social adjustment problems. Most common problems in psychological and social adjustment included fear, depression and anxiety about their health, problems in socialising and not being able to attend any social event.

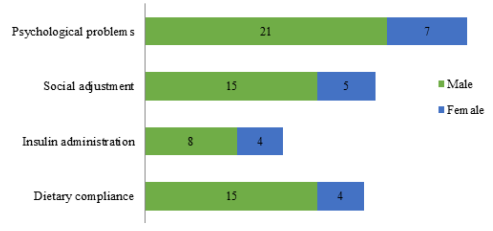


Figure 3: Different areas of problems faced by subjects

Discussion:

This finding was found to be similar to the study where based on the critical review of studies it was reported that the prevalence of severe depression in patients with DM was around 12% (8-18%), while the mild symptoms of depression and an increased risk of depression, was generally reported to be present in 15-35% (Andreoulakis et al., 2012). In another study, the prevalence of severe depression was reported among 21%; moderate depression in 27%; and low depression in 25.5% of diabetic patients (Shamsaei, Cheraghi, & Allahverdipour, 2006).

According to Harris and Lustman (Harris, Lustman, & Harris, M. Lustman, 1998), psychological problems (e.g., depression, anxiety) also have adverse effects on many physical diseases via a variety of behavioural and physiological pathways. Human nature, the complexity of the regimen, and the chronicity of disease also contribute importantly to non-adherence to diet. Non-adherence is a central focus of psychological treatment because of its recognised association with the poor dietary intake. Non-adherence is often mistakenly attributed to inadequate knowledge about proper disease care. Many other psychosocial factors contribute significantly to this problem, such as inadequate social support, time pressures, stress, and health beliefs that are incompatible with the regimen. These problems may be treated effectively with psychotherapy or psychotropic medication.

Another problem faced by the subjects was a problem in adhering to the dietary modifications which involved fluid, salt and sugar/sweet restriction in the diet. The reasons for non-compliance were the bland taste of the food, less variety of foods and poor palatability. Other reasons for non-compliance to diet recommendations were a loss of appetite and day to day similarity in diet found in 86.7% and 76.7% of subjects, respectively. According to Krenitsky(Krenitsky, 2004) overzealous diet restrictions which include the provision of a "renal diabetic diet" that limits sugar, salt, potassium, phosphorus and fluid in a patient, contributes to poor oral intake and thus leads to malnutrition. Along with these problems, difficulty in insulin administration (i.e. pain, dose measurement, site selection, and swelling) was experienced by 40% of the subjects. Therefore there is a need to understand and address such problems to minimise the diabetic complications.

Conclusion

Thus, it may be concluded from this study that subjects of diabetic nephropathy face several problems which can impact their dietary intake. This combined diabetes and depression is difficult enough and recognised medical problem. Responsibility for health professionals to identify depression in people with diabetes is one of the effective treatments to achieve the best clinical outcomes for these people. The multidisciplinary team approach is the best way to handle the need of the patients. Most health services are poorly equipped to cope with the disease and requires a new way of treatment therefore to address this important public health. The study contributed to addressing psychological issues in diabetic nephropathy patients. However, we should not overlook early interventions to minimise the complication of diabetes. Furthermore, the findings may raise awareness among health care facilitators and healthcare planners of the pertinent issue of addressing such problems in medical consultations.

Acknowledgement

The authors sincerely thank the study participants for their contribution to the research, as well as the staff of Dialysis unit, Max Super Specialty Hospital, New Delhi. We would also like to thank Ms. Ritika Samadhar, Regional Head, Dietetics, and Dr Riyaz Ahmad Asad (Senior Resident), Max Healthcare, Saket New Delhi. The authors would specifically like to show the gratitude to Dr Anupa Siddhu, Director, Lady Irwin College for providing institutional support and encouragement.

Conflict of Interest

None declared

Source for support: Nil

References:

1. Andreoulakis, E., Hyphantis, T., Kandylis, D., & Iacovides, A. (2012). Depression in diabetes mellitus: A comprehensive review. Hippokratia.
2. Anjali, & Seth, V. (2015). International Journal of Food Science, Nutrition and Dietetics (IJFS) ISSN 2326-3350. International Journal of Food Science, Nutrition and Dietetics, 4(1), 1–5.
3. Delahanty, L. M., Conroy, M. B., & Nathan, D. M. (2006). Psychological Predictors of Physical Activity in the Diabetes Prevention Program. Journal of the American Dietetic Association, 106(5), 698–705. http://doi.org/10.1016/j.jada.2006.02.011
4. Harris, M. A., Lustman, P. J., & Harris, M. Lustman, P. (1998). The Psychologist in Diabetes Care. Clinical Diabetes, 16(2), 1–7. Retrieved from http://journal.diabetes.org/clinicaldiabetes/v16n21998/PG91.htm
5. Holt, R. I. G., De Groot, M., & Golden, S. H. (2014). Diabetes and depression. Current Diabetes Reports. http://doi.org/10.1007/s11892-014-0491-3
6. Krenitsky, J. (2004). Nutrition in renal failure: myths and management. Practical Gastroenterology, 40–59.
7. Shamsaei, F., Cheraghi, F., & Allahverdipour, H. (2006). Depression in Diabetic Patients. Journal of Research in Health Sciences, 6(2), 39–43. http://doi.org/10.1016/j.jdiacomp.2004.01.002