

Psychosocial Aspects and Quality of Life

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INTRODUCTION

Diabetes mellitus (DM), as defined by the American Diabetes Association, is a group of metabolic disorders with a common characteristic of hyperglycemia and caused by a quantitative or qualitative defect in insulin secretion or action.¹ The incidence and prevalence of diabetes increase with age due to a decline in beta cell function, changes in carbohydrate metabolism, and an increase in sedentary lifestyle. The microvascular and macrovascular complications of DM are well-known, have been studied extensively, and are evaluated on a routine basis while managing a patient with DM. But diabetes also has a significant impact on psychiatric and psychosocial aspects of the patient and family members, which is often ignored and underdiagnosed. Hence, the contemporary geriatric management of diabetes should focus not only on the glycemic targets but also should consider the functional capacity, psychosocial aspects, and quality of life. This chapter will focus on the bidirectional relationship of diabetes with psychosocial disorders.

HISTORY

The first description of diabetes was given by Aretaeus of Cappadocia, sometime in the 2nd century AD. In his text, he described the anguish and the pain that the patient with diabetes has to suffer from. In 1879, Sir Henry Maudsley wrote that the prevalence of diabetes is more in families with insanity in his book “The Pathology of Mind”.^{2,3}

GENETICS

Certain genes have been shown to be associated with the increased chances of developing diabetes and psychiatric disorders. These have been summarized in **Figure 1**.⁴

PSYCHOSOCIAL CHALLENGES IN DIABETES

Depression

The prevalence of depression is much higher (around 2 to 4 times) in the elderly with diabetes as compared to those without. The prevalence ranges from 14 to 28% in the elderly with diabetes.⁵ Depression leads to poor self-care and a lack of adherence to the management of diabetes. Various guidelines recommend the screening of depression in patients with diabetes and unexplained poor glycemic control.⁶ Various screening tools are available—Patient Health Questionnaire (PHQ-9), Beck Depression Inventory (BDI), Geriatric Depression Scale (GDS), among others. Management approach includes counselling, patient education, and individualised care. Treatment includes lifestyle modifications, anti-depressants, psychotherapy, and electroconvulsive therapy (ECT).

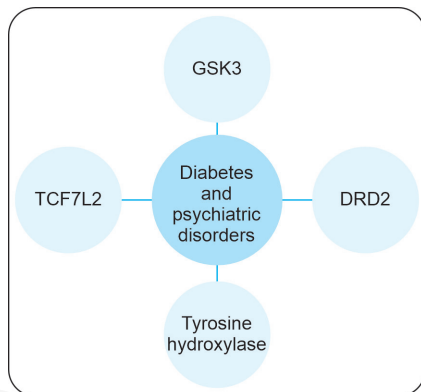


Fig. 1: Common genes linking diabetes and psychiatric disorders

Abbreviations: GSK3: Glycogen synthase kinase 3 gene; DRD2: Dopamine D2 receptor gene; TCF7L2: Transcription factor 7-like 2 gene

Diabetes Distress

Diabetes distress refers to a negative emotional and affective state due to the burden of managing diabetes and its complications, and the fear of developing hypoglycemia. The term was proposed by the Joslin Diabetes Centre in 1995.⁷ Though patients with diabetes distress commonly have symptoms such as those of anxiety and depression, it is not a psychiatric illness but a type of stress response resulting from the daily problems with the management of diabetes and self-care. This is more common than depression prevalence-wise.

Since this entity is different from depression, it also requires separate tools for its recognition. It can also hamper the self-care behaviors further, resulting in poor glycemic control and increased risk of developing complications of diabetes. Two of the most common screening tools available are the Diabetes Distress Scale (DDS) and Problem Areas in Diabetes (PAID).⁸

Anxiety

The presence of generalized anxiety disorder is much more common in the elderly with diabetes. Increased anxiety symptoms and panic attacks are associated with

an increase in levels of counter-regulatory hormones affecting glycemic control. Sometimes symptoms of hypoglycemia may mimic those of panic attacks, making the management even more difficult. Management includes effective counselling, cognitive behavioral therapies, exercises, and anxiolytics.⁹

Social Challenges

The geriatric age group itself is associated with many transitions in life. Retirement, relocation, isolation, bereavement, and fear of disease and death affect the quality of life. The burden of diabetes further worsens the situation. The trauma of diagnosis and self-care, regular measurement of blood glucose and intake of medicines, symptoms of comorbidities, and complications of diabetes make these social challenges even worse. Family members, friends, and health care workers should intervene and recognise these symptoms. Proper behavioral counselling and increasing social interactions, and gathering may help ameliorate the symptoms.⁹

Neurocognitive Function

Elderly individuals with DM are at higher risk of developing neurocognitive decline, ranging from mild executive dysfunction to dementia. These have been associated with both hyper- and hypoglycemia.⁶ In recent years, a new entity, *diabetes related dementia*, has been noticed, which is clinically and pathophysiologically different from Alzheimer's disease and vascular dementia. The characteristics of diabetes related dementia have been summarized in **Figure 2**.¹⁰

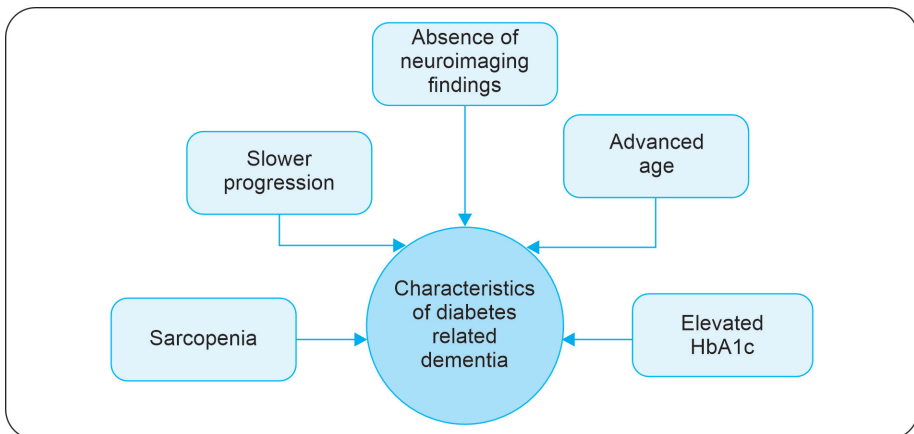


Fig. 2: Characteristics of diabetes related dementia

QUALITY OF LIFE

Maintaining a good quality of life (QOL) after the diagnosis of any chronic illness in the elderly is a must. Quality of life is a subjective feeling of emotional, physical, and social satisfaction. With the case of diabetes, various aspects of the disease can affect the QOL—diagnosis, self-monitoring of blood glucose, comorbidities, complications, hypoglycemia, and fear of mortality. Hence, the quality of life associated with diabetes changes with time. Currently, no diabetes-specific screening tool has been approved for assessing the quality of life. However, the general QOL instruments can be used for patients with diabetes as well, like the EuroQOL tool (EQ-5D).¹¹ This assesses the quality of life in several domains—self-care, mobility, depression, and activities of daily living. The DCCT (Diabetes Complications and Control Trial) used a tool known as Diabetes Quality of Life (DQOL). One significant finding of the DCCT was that the intensity of the treatment of diabetes did not found to affect the quality of life of the individuals.¹²

MANAGEMENT

Managing the psychosocial symptoms of diabetes requires a comprehensive approach. The primary approach should be to maintain good glycemic control. This will itself reduce the distress of the patient to a great extent, apart from providing other metabolic benefits. A good, positive, and interactive relationship with the healthcare providers is a must. Proper communication and counselling should be done. Good emotional support should be provided by family members and society. Patients should be taught and trained about the proper techniques of the management of diabetes—blood glucose measurement, insulin administration, detection and management of hypoglycemia. Wherever required, referral from a psychiatrist should be taken and pharmacotherapy used if essential.¹³

Conclusion

Diabetes in the elderly is associated with a significant impact on the psychosocial aspects affecting the quality of life. These should be screened regularly, and prompt treatment should be provided. A good, positive, and friendly relationship between healthcare providers with patients is essential for managing these, along with good family and social support.

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