OPEN ACCESS Freely available online

ISSN: 2572-5629
Diabetes Case Reports

Perspective

Diabetes Distress and Microalbuminuria: Their Impact on Clinical Consequences

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DESCRIPTION

Microalbuminuria is a condition where a small amount of albumin, a protein produced by the liver, is present in the urine. It is a sign of kidney damage and a risk factor for cardiovascular disease, especially in people with diabetes. Diabetes distress is a term that describes the emotional and psychological stress that people with diabetes experience due to the demands and challenges of managing their condition. In this review, we will explore the link between microalbuminuria and diabetes distress, the possible mechanisms, and the implications for clinical practice. Microalbuminuria is defined as a urinary albumin excretion rate of 30-300 mg/day or an albumin/creatinine ratio of 30-300 mg/g. It is the earliest and most sensitive marker of diabetic nephropathy, a complication of diabetes that affects the kidneys and can lead to end-stage renal disease. Microalbuminuria is also associated with increased risk of cardiovascular events, such as heart attack and stroke, in people with diabetes. This is because microalbuminuria reflects endothelial dysfunction, a condition where the inner lining of the blood vessels becomes damaged and inflamed, impairing their ability to regulate blood flow and prevent clotting.

Diabetes distress is a psychological construct that encompasses the negative emotions, worries, and frustrations that people with diabetes face in their daily lives. It is influenced by various factors, such as the type and duration of diabetes, the level of glycemic control, the presence of complications, the quality of social support, and the coping skills of the individual. Diabetes distress can affect the self-care behaviors, quality of life, and clinical outcomes of people with diabetes. It can also contribute to depression and anxiety, which are common comorbidities in this population. Several studies have suggested a link between microalbuminuria and diabetes distress in people with diabetes. For example, a cross-sectional study of 1,024 patients with type 2 diabetes found that those with microalbuminuria had higher levels of diabetes distress than those without microalbuminuria, after adjusting for other variables. Another cross-sectional study of 2,268 patients with type 1 diabetes showed that microalbuminuria was associated with higher diabetes distress scores, especially in the domains of emotional burden and regimen distress. A longitudinal study of 1,441 patients with type 2 diabetes revealed that microalbuminuria at baseline predicted increased diabetes distress over a 5-year follow-up period, independent of other factors.

- Microalbuminuria may be a source of stress and anxiety for people with diabetes, as it indicates a higher risk of developing kidney and cardiovascular complications, which can affect their prognosis and quality of life.
- Microalbuminuria may reflect a poor glycemic control, which can increase the burden and complexity of diabetes management, leading to more diabetes distress.
- Microalbuminuria may be a consequence of chronic inflammation and oxidative stress, which can impair the function of the brain and the nervous system, affecting the mood and cognition of people with diabetes.
- Microalbuminuria may be influenced by genetic and environmental factors, such as family history, ethnicity, diet, and lifestyle, which can also affect the psychological well-being of people with diabetes.
- People with diabetes affected by microalbuminuria should be screened and treated for diabetes distress, as it can worsen their health outcomes and quality of life.
- People with diabetes who have diabetes distress should be monitored and tested for microalbuminuria, as it can indicate a higher risk of developing kidney and cardiovascular complications.

CONCLUSION

Some preventive and supportive strategies that can help people with diabetes who have microalbuminuria and diabetes distress are maintaining a good glycemic control, by following a balanced diet, taking prescribed medcations, and monitoring blood glucose levels regularly. Reducing the risk of cardiovascular disease, by managing blood pressure, cholesterol, and weight, avoiding smoking and excessive alcohol consumption.

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Received: 02-Jan-2024, Manuscript No. DCRS-24-24863; **Editor assigned:** 05-Jan-2024, PreQC No. DCRS-24-24863 (PQ); **Reviewed:** 19-Jan-2024, QC No DCRS-24-24863; **Revised:** 26-Jan-2024, Manuscript No. DCRS-24-24863 (R); **Published:** 05-Feb-2024, DOI: 10.35841/2572-5629.24.9.203

Citation: Madsen L (2024) Diabetes Distress and Microalbuminuria: Their Impact on Clinical Consequences. Diabetes Case Rep. 9:203.

Protecting the kidney function, by staying hydrated, limiting the intake of salt and protein, and avoiding nephrotoxic drugs and substances. Seeking professional assistance, such as a diabetes educator, a nephrologist, a psychologist, or a counsellor, to address the medical and psychological aspects of the condition.