

Alternative Medicines for Diabetes Treatment

Bethlehem Derso*

Institute of Public Health, College of Medicine and Health Sciences, Gondar, Ethiopia

Commentary

Diabetes Mellitus (DM) is a chronic metabolic condition in which blood glucose levels are consistently higher than normal. These elevated blood glucose levels are linked to abnormalities in insulin synthesis and/or activity. Diabetes is caused by either a shortage of insulin production by the pancreas (type 1 diabetes, T1D), which occurs when the amount of insulin produced by the pancreas is insufficient to carry out all blood glucose management procedures, or a decrease in insulin sensitivity by body cells (type 2 diabetes, T2D). Diabetes can also be caused by a combination of poor insulin production and sensitivity, or by hormonal dysregulation during pregnancy. Adherence to prescribed therapy and clinical management plans, as well as living a healthy lifestyle and eating a balanced diet, are examples of self-care practises related to diabetes self-management. Furthermore, many patients employ complementary and alternative therapy (CAM). The World Health Organization defines complementary and alternative medicine (CAM) as a "wide group of health care practises that are not part of that country's own heritage or mainstream medicine and are not completely integrated into the dominant health-care system."

Complementary and alternative medicine (CAM) has been practised for millennia around the world and includes a wide range of therapies including dietary supplements, botanicals, traditional Chinese medicine, acupuncture, mind-body medicine, and therapeutic massage. According to the World Health Organization, nearly 80% of the world's population uses some type of complementary and alternative medicine. The reasons for using complementary and alternative medicine (CAM) differ depending on the country and the amount of conventional healthcare provided to the populace. In nations where many people lack access to healthcare resources, and with global healthcare costs rising, complementary and alternative medicine (CAM) can frequently provide a more affordable and accessible alternative to conventional medical care. CAM use deviates from traditional methods in high-income countries such as the United States of America and has been borrowed from other countries where CAM consumption is part of the prevailing healthcare structure. Types of complementary and alternative medicine (CAM) utilised in the Caribbean are frequently approaches that have been used for centuries and have profound cultural and/or religious roots. A survey of the usage of herbal treatments among rural and urban Jamaicans of various socioeconomic classes discovered that 100% of the participants utilised herbs.

Type 2 diabetes mellitus (T2DM) is the most common type of diabetes

on all continents. According to the World Health Organization, the number of persons affected by this disease will nearly double in the next ten years. T2DM is a chronic endocrine condition marked by hyperglycemia, insulin resistance, inefficient pancreatic insulin secretion, and increased hepatic glucose production. Lower glucose transfer to the liver, muscle cells, and fat cells is managed by these conditions. Hyperlipidaemia, caused by the utilisation of lipids instead of glucose, is a significant characteristic of diabetes. Patients with T2DM are more likely to develop microvascular consequences (such as diabetic retinopathy, nephropathy, and neuropathy) as well as macrovascular complications (such as cardiovascular disease, stroke, and peripheral artery dysfunction) than the general population [1-5].

Diabetic foot and decreased resistance to different infections are two more clinical problems connected with T2DM. Polyuria, weight loss (occasionally with polyphagia), and impaired vision are all clinical manifestations of hyperglycemia. Renal dysfunction, poor growth and development, lipodystrophy, non-alcoholic fatty liver disease, reduced joint mobility, and oedema are all possible diagnoses. Furthermore, diabetic bone damage has been identified as a significant secondary consequence of T2DM. This condition is characterised by low bone mineral density (BMD), skeletal microarchitecture and bone metabolic abnormalities, decreased bone strength, and decreased expression of genes related with osteoblast activity.

References

1. McIntyre, H. David, Patrick Catalano, Culin Zhang, Gernot Desoye, and et al. "Gestational diabetes mellitus." *Nat Rev Dis Primers* 5 (2019): 47.
2. Popovich, David G., Lu Li, and Wei Zhang. "Bitter Melon (*Momordica Charantia*) Triterpenoid Extract Reduces Preadipocyte Viability, Lipid Accumulation and Adiponectin Expression in 3T3-L1 Cells." *Food Chem Toxicol* 48 (2010): 1619-1626.
3. Vieira, Raquel, Selma B. Souto, Elena Sánchez-López, Ana López Machado, and et al. "Sugar-lowering drugs for type 2 diabetes mellitus and metabolic syndrome-Strategies for in vivo administration: Part-II." *J Clin Med* 8 (2019): 1332.
4. Yang, Mingxing, Xiumin Li, Suhuan Liu, Zhipeng Li, and et al. "Meta-analysis of acupuncture for relieving non-organic dyspeptic symptoms suggestive of diabetic gastroparesis." *BMC Complement Altern Med* 13 (2013): 311.
5. Tripathi, Mukesh, and Soma Kaushik. "Carbamezapine for pain management in Guillain-Barre syndrome patients in the intensive care unit." *Crit Care Med* 28 (2000): 655-658.

How to cite this article: Derso, Bethlehem. "Alternative Medicines for Diabetes Treatment." *J Diabetic Complications Med* 7 (2022): 165.

*Address for Correspondence: Bethlehem Derso, Institute of Public Health, College of Medicine and Health Sciences, Gondar, Ethiopia; E-mail: derso.be@gmail.com

Copyright: © 2022 Derso B. This is an open-access article distributed under the terms of the creative commons attribution license which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

Received: 01 January, 2022, Manuscript No. *jdcm* -22-54391; **Editor assigned:** 03 January, 2022, PreQC No. P-54391; **Reviewed:** 17 January, 2022, QC No. Q-54391; **Revised:** 21 January, 2022, Manuscript No. R-54391; **Published:** 29 January, 2022, DOI: 10.37421/2475-3211.2022.7.165