

Plant-based diet for HbA1c reduction in type 2 diabetes mellitus: an evidence-based case report

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Abstrak

ABSTRACT

Background: diabetes has become a major public health concern with an estimated 180 million cases worldwide. Nutritional adjustment is one of the key aspects in the management of type 2 diabetes mellitus. Previous studies have suggested an association between vegetarian diets and improvements in glycemic control

in type 2 diabetes mellitus, however the relationship is not well established. The aim of this report is to perform

a critical appraisal to analyze whether plant-based diet reduces the HbA1c level compared to conventional diet.

Methods: a comprehensive computer-based literature search was performed on June 20, 2016 using PubMed,

Ovid, EBSCO, and the Cochrane Library. All abstracts and titles from the initial search results were screened,

reviewed, and appraised using critical appraisal worksheets by Center of Evidence-Based Medicine, University

of Oxford. Results: one systematic review and two RCTs met the inclusion criteria and were considered eligible

for this case report. In patients with type 2 diabetes mellitus, HbA1c significantly yielded greater reduction in

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significantly yielded greater reduction in the plant-based group compared to conventional diet group after 22 weeks of follow up. Similarly, there was a statistically greater reduction in HbA1c level in the

plant-based group after 72 weeks. Furthermore, consumption of plant-based diet was associated with a

significant reduction in HbA1c. Conclusion: in patients with type 2 diabetes mellitus, HbA1c reduction was greater in patients with plant-based diet compared to patients with conventional diet. Further research should be conducted with larger sample size and longer follow-up period.