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ABSTRAK
INTRODUCTION: Diabetes has become a major public health concern with an estimated 180 million cases worldwide. Nutritional changes are 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 randomized controlled trials (RCTs) met the inclusion criteria and were considered eligible for this case report. In patients with type 2 diabetes mellitus, HbA1c reduction was significantly greater in the plant-based group compared to conventional diet group in participants who did not change medications after 22 weeks of follow up (P=0.01). Similarly, there was also a significantly greater reduction in HbA1c level in the plant-based group after 72 weeks (P=0.03). Furthermore, consumption of plant-based diet was associated with a significant reduction in HbA1c (P=0.001).
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 fasting blood glucose as the main outcome.