Vinegar consumption can attenuate postprandial glucose and Insulin responses: A systematic review and meta-analysis of clinical trials

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Postprandial hyperglycemia plays a decisive role in the development of chronic metabolic disorders. The effect of vinegar intake with a meal on postprandial glucose has been studied in several trials with conflicting results. The purpose of the current study was to systematically review control trials that report on the effect of vinegar intake on postprandial glucose response. Postprandial Insulin response was considered as secondary outcome. The pooled analysis of studies revealed a significant mean glucose and Insulin area under the curve (AUC) reduction in participants who consumed vinegar compared with the control group (standard mean difference=-0.59, 95% CI, -0.80 to -0.37, p<0.001 and -0.68, 95% CI -0.92 to -0.44, p<0.001, respectively). In conclusion, our results suggest that vinegar consumption can reduce the postprandial glucose and Insulin responses in both healthy and participants with glucose disorder. Further studies considering different dose of vinegar especially usual intake dose in different level of glucose disorder with larger sample size are potentially recommended to elucidate these associations more clearly.

Biography
Anahita Mansoori has completed her PhD in Nutrition Sciences from Tehran University of Medical Sciences, Iran. She is the Faculty Member of Ahvaz University of Medical Sciences, Iran.

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