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## WHETHER PROBIOTIC SUPPLEMENTATION IS EFFECTIVE IN PREVENTION OF THE HYPERGLYCEMIA INDUCED MATERNAL HYPERTENSION?

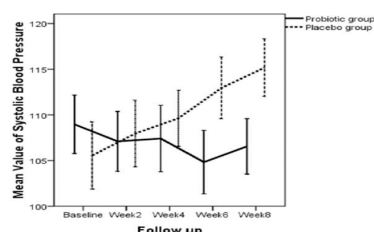
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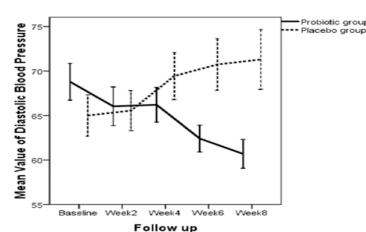
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Despite achieved progress in the control and treatment of pregnant women with gestational diabetes mellitus (GDM), these patients are still at risk of disease complications. The aim of present study was to investigate the effect of probiotic supplement on systolic blood pressure (SBP) and diastolic blood pressure (DBP) among GDM pregnant women. In this randomized double-blind, placebo-controlled trial, 64 pregnant women with GDM were assigned into two groups and received probiotic capsule (n=32) or placebo (n=32) for 8 weeks. Blood pressures were measured at baseline, 2 weeks intervals and up to 8 weeks. 56 subjects were analyzed at the end of the study. After 8 weeks, SBP didn't differ significantly in probiotic group at any time checkpoint but increased significantly in placebo group. DBP changes in a trend in probiotic group was obvious after 2 weeks and was reducing towards, however in placebo group, there was a tendency for higher DBP after week 6. There were significant differences between two groups of study after 6 weeks in the terms of SBP [104.828 (2.051) mmHg vs. 112.963 (2.126) mmHg,  $p=0.008$  and 106.552 (1.845) mmHg vs. 115.185 (1.912) mmHg,  $p=0.002$ , in week 6 and 8 respectively] and DBP [62.414 (1.353) mmHg vs. 70.741 (1.402) mmHg,  $p<0.001$  and 60.690 (1.540) mmHg vs. 71.296 (1.596) mmHg,  $p<0.001$ , in weeks 6 and 8 respectively].

**Conclusion:** The results demonstrated that taking probiotic supplements for 8 weeks in patients with GDM prevented the increase of SBP and resulted in reduction of DBP after 2 weeks of consumption



Changes in the Systolic blood pressure over the time points in each group



Changes in the Diastolic blood pressure over the time points in each group

### Biography

Majid Hajifaraji is a Research Associate, Professor in Nutritional Sciences of the National Nutrition and Food Technology Research Institute (NNFTRI), and has served as Dean of Faculty of Nutritional Sciences and Food Technology (FNSFT) from 2010- 2015 and President of Iranian Nutrition Society (INS) from 2011-2015. He has a PhD in Clinical Nutrition program at Kings College, London University.

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