

Poster Presentation

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A Comparative Study of Investigating the Relationship between the Nutrition, Biochemical Parameters and Demographic Characteristics in Women with and without Gestational Diabetes

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Abstract

Objective: Gestational diabetes mellitus (GDM) is characterized by glucose intolerance during pregnancy. Incidence of gestational diabetes can increase by several factors such as obesity, aging, diet and genetic factors. This study aimed to assess the role of nutrition, biochemical and demographic factors in development of GDM in pregnant women.

Materials and Methods: In this prospective study, pregnant women with and without gestational diabetes mellitus were divided into control and GDM women. At the onset of the study, all subjects were asked to complete a demographic questionnaire. Serum samples were obtained from each woman and the biochemical parameters were measured and then analyzed by Graph Pad Prism version 5. **Results:** Our results showed a significant relationship between age and BMI with GDM. The level of triglyceride (mg/dl), HOMA Index (mmol/L□~μU/mL), FBS (mg/dl), and Insulin (μU/mL) were significantly higher in GDM women compared to the control group. Serum HDL concentration was significantly higher in normal pregnant women compared to patients with GDM. Education level was also higher significantly in control group. The amount of fruits and vegetables consumption was lower in GDM compared to control group significantly. Furthermore, the women who had consummated fruit and vegetables in their diet less likely developed GDM. **Conclusions:** This study suggests a strong association between GDM and the consumption of high-calorie foods. Therefore, the use of low-calorie foods such as fruits and vegetables can help reducing the incidence of diabetes in pregnant women.

Keywords: Gestational diabetes mellitus, Pregnancy, Nutrition