

## Evaluation of Mizaj (Temperament) of gastroparesis in diabetic patients

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### Abstract:

**Background and Purpose:** Diabetes mellitus is one of the most common chronic diseases in the world and is associated with several systemic complications, especially digestive problems. Gastroparesis is a delayed gastric emptying disorder, characterized by symptoms such as nausea, vomiting, early satiety, bloating, and upper abdominal pain. Utilizing the potentials of traditional medicine is growing day by day, which necessitates development and adaptation to modern medicine. Considering the important role of Mizaj (Temperament) in prescriptions of traditional Persian medicine, this study was designed to evaluate the Mizaj of patients with diabetic gastroparesis in order to develop treatment protocols for this gastrointestinal complication.

**Materials and Methods:** In this cross-sectional study, 56 patients with gastroparesis and 44 patients without gastroparesis as a control group were selected among the patients with type 1 or 2 diabetes over 18 years of age who referred to the clinics of Mashhad University of Medical Sciences. All participants were identified and confirmed by a gastroenterologist. The complication of gastroparesis was evaluated by the standard questionnaire of gastroparesis, and their Mizaj was diagnosed by Mojahedi Mizaj Questionnaire (MMQ). After assessing the normality of the data, between-group comparison was made with the chi-square test and one-way analysis of variance was analyzed with a significant level of  $p < 0.05$ .

**Results:** The results showed that warm-tempered patients with a mean of 44.29 had lower gastroparesis scores than cold-tempered patients with an average of 52.22, but this difference was not significant ( $p = 0.08$ ). On the other hand, wet-tempered patients with an average of 55.77 had a higher gastroparesis score than dry-tempered patients with an average of 39.92, and this difference was significant ( $p = 0.001$ ).

**Conclusion:** In this study, cold and wet temperament was more frequent in patients with diabetic gastroparesis. It seems that due to the pathophysiology of gastroparesis from the perspective of Persian medicine, diabetic patients with a cold and wet temperament have a greater susceptibility to delayed gastric emptying or gastroparesis.

**Keywords:** Temperament (Mizaj), Gastroparesis, Diabetes mellitus, Persian Medicine

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