Abstract

Background/aims: evidence of gender-related differences in gastric emptying have been reported in the literature. Usually, those researches have focusing only with solid or liquid meal and invasive techniques. The objective of this study was to know the differences in the half time of gastric emptying and frequency of peristaltic contractions measured with magnetogastrography (MGG) on healthy subjects, using a semi-solid test meal.

Methods: the study was carried out in 16 healthy subjects without gastrointestinal disease history, they were divided in two groups, 8 male and 8 female. A test meal composed by 250 ml of yogurt and 3 grs of magnetite (Fe3O4), was employed.

Results: the gastric emptying half times were found to be 32.3±10.8 and 36.0±6.7 minutes, for men and women, respectively. Magnetogastrography modality presented in this study is a useful technique to measure the gastric emptying and the peristaltic contractions frequency. The studies were performed in healthy subjects without side effects. Using this technique a significant statistical difference (p<0.05) on gastric emptying from healthy volunteers was obtained between men and women.

Conclusions: a contribution of this study was to demonstrate the feasibility of magnetogastrography to analyze gender differences in the gastric emptying half time using a semi-solid test meal.

Keywords

Magnetogastrography, gastric emptying, peristaltic contractions, gender differences.