



Clinical experimental study of therapy for gastric functional diseases by stimulation of gastric pace maker *via* abdominal surface

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Abstract

AIM: The aim of this paper was to make an investigation on the curative effect of the "gastrointestinal bioelectrical feedback therapy" (GBEFT) for gastric functional diseases, which had been built by the study of the animal model. The following was the 2nd stage of this study.

METHODS: Among 63 cases there were 14 cases of gastric dysrhythmia syndrome (GDS), 34 cases of gastric functional dysrhythmia (GFD) with CSG and 15 cases of GP. The average of their ages was 41.8 (11.2 years old) max. 70 years, min, 19 years. The patients were divided into 2 groups according to the frequency of the slow wave was made before and after the treatment. The frequency of treatment was (0.1-0.3 cpm higher than that of patient's EGG. The amplitude was lower than 400 (A. A course of treatment was 10 d. One time per day, 30 min per time. The position

of surface electrodes were on the projection of the corpus ventriculi (cv) and antrum pyloricum (ap) pacemaker respectively. Negative electrode was on the cv pacemaker.

RESULTS: (1) After one course, the total effective rate of recovery or relief of symptoms of patients was 84.2%. (2) The changes of EGG parameters of 1 group of $F < 3.0$ cpm: parameters were markedly better than those before the treatment. The rate of better cases was 77.1% (26/360; B. group of $F > 3.0$ cpm: The rate of the better parameters cases was 75.8% (25/33), and the rate with normal value of EGG was 68.7% (22/32). (3) The total effective rate of 16 cases, confirmed by gastroscopy (or X-ray with barium meal), EGG and recovery of symptoms, were 75.0%, 81.3% and 93.8%, respectively. (4) The effective rate of long term: 11 cases after this therapy had no relapse after 6 mo. (5) In 17 cases not cured by medicine treatment for 1-20 years the effective rate was 70.6%.

CONCLUSION: Stimulation on the gastric pacemaker is effective for the treatment of gastric functional diseases, including gastroparesis.

Key words: Gastric functional diseases; Gastric pacemaker; Gastroparesis

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