

Value of electrogastrogram frequency and amplitude parameters

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Abstract

AIM: Electrogastragram frequency and amplitude parameters of 500 cases were analyzed to evaluating their value in clinical diagnosis.

METHODS: In 500 cases, there were 200 males and 300 females. The mean age was 57 years. The medicine which could influence gastric function were stopped for 1-2 d before examination and patients were fasted for 12 h before examination the electrodes were placed at the projective sites of antrum and body of stomach. The patient took 50 g of bread after recording for 10 min, then recorded for another 10 min.

RESULTS: The frequency of electrogastragram showed obviously lower in the series of patients of gastric dysrhythmia syndrome and combined gastric ulcer, no obvious change in other series of gastric

illnesses. The after meal amplitude of superficial atrophic gastritis, gastric cancer 1 and gastric dysrhythmia syndrome was lower than the before-meal amplitude, but the after-meal of other diseases, esp. duodenitis, hyperacid syndrome, duodenal ulcer, complex ulcer, was higher than before-meal amplitude ($P < 0.05$). In addition, normal gastric electric variation coefficient of amplitude was below 30%, in other diseases, the variation co-efficient of amplitude was above 40% some even reach 76%.

CONCLUSIONS: (1) There is no significance to evaluate mean value of frequency and its variation co-efficient, but more significant to evaluate the mean value and its variation co-efficient of electrogastragram amplitude. (2) The slow waves about 3 times per minute were recorded on patients suffered from variant gastric diseases. It suggested that the slow waves of electrogastragram could reflect the stimulating rhythm but not the gastric contraction strength. (3) The mean value of gastric electric amplitude had variation in several gastric diseases before and after meal. It suggested it could reflect the contraction strength of gastric muscles.

Key words: Electrogastragram; Frequency; Amplitude

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