

Characteristics of gastric and duodenal motility in patients with duodenal ulcer

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Author contributions: All authors contributed equally to the work.

Original title: *China National Journal of New Gastroenterology* (1995-1997) renamed *World Journal of Gastroenterology* (1998-).

Received: December 11, 1995

Revised: January 21, 1996

Accepted: July 19, 1996

Published online: September 15, 1996

Abstract

AIM: Gastric acid hypersecretion is a main mechanism in genesis of duodenal ulcer (DU). Rapid gastric emptying and impaired acid inhibition of gastric emptying has been reported in DU patients. It is possible that accelerated gastric emptying play a role in genesis of DU by increasing the effective acid load delivered to duodenum, our aim is to study the interdigestive and postcibal motility of gastrum and duodenum on DU patients.

METHODS: 11 DU patients and 12 healthy subjects were chose, gastric and duodenal intraluminal pressure was measured by catheter perfusion technique. Interdigestive motility was recorded for 3 h, postcibal motility was recorded for 1.5 h. Mean frequency, mean

amplitude and motility index of antral and duodenal contraction were calculated in fasting and fed states, respectively. The number of phase three found and propagation patterns were recorded in interdigestive state.

RESULTS: In fasting state, the frequency of gastric antral contraction was higher in DU group than in healthy controls ($P < 0.05$), amplitude showed no difference, 41 phase three contraction was found in DU, only 18 phase 3 was found in control group, the cycle of IDMC was shorter in DU than in healthy subjects, phase 3 with abnormal conduction (retrograde or not propagation, accounting for 70.7%) increased more in DU than in controls (27.8%).

CONCLUSION: Accelerated gastric antral motility is present in DU patients, manifested as increase of antral contraction number and shorting of IDMC cycle. Coordinate contraction of stomach and duodenum is impaired in DU, increased phase three number of abnormal conduction is one of its manifestations.

Key words: Gastric and duodenal motility; Duodenal ulcer

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He QA, Zhou SC, Feng ZT, Gu CM, He P, Ren YM, Song QY, Du H, Liu JD. Characteristics of gastric and duodenal motility in patients with duodenal ulcer. *World J Gastroenterol* 1996; 2(Suppl1): 154 Available from: URL: <http://www.wjgnet.com/1007-9327/full/v2/iSuppl1/154.htm> DOI: <http://dx.doi.org/10.3748/wjg.v2.iSuppl1.154>

E- Editor: Liu WX



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