



## Preliminary study on interdigestive and postprandial antroduodenal motility in patients with ulcer dyspepsia

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### Abstract

**AIM:** The pathophysiologic mechanisms of nonulcer dyspepsia (NUD) is still unclear, disturbed gastrointestinal motility has been proposed as a possible etiologic factor. The present study examined interdigestive and postcibal antroduodenal motility by manometry in NUD patients, assessed role of abnormal gastric and duodenal motility in the pathogenesis of NUD.

**METHODS:** 28 patients with NUD and thirteen healthy subjects entered the study. Each symptom was scored based on intensity and weekly frequency, total symptom score was calculated for each patient. Antroduodenal intraluminal pressure was measured by catheter perfusion technique. Interdigestive antroduodenal motility was recorded in all subjects for at least 3.5 h, a liquid standard test meal (300 mL, 200 cal) was then consumed, postcibal motility was recorded in 16 of 28 patients and all healthy controls over a period of 1.5 h. In each subject mean amplitude, mean number and motility

index (MI) of antral and duodenal contraction was calculated.

**RESULTS:** In interdigestive cycle the third phase was not found in twelve of 28 patients with NUD, showing significant difference compared with one of 13 healthy control ( $P < 0.05$ ). Mean amplitude, mean frequency and MI for interdigestive phase 2 and phase 3 had no difference between NUD patients and healthy controls ( $P > 0.05$ ). The mean amplitude, mean number and MI of postprandial contractions for gastric antrum were lower in NUD patients than in healthy controls ( $P < 0.05$ ), in 7 of 16 patients, postprandial antral MI fell below normal range defined in control group by Mean  $\pm$  1.96 SD (3.72-5.6). Total symptom score showed no difference between NUD with interdigestive phase 3 and NUD without phase 3, between NUD with decreased postcibal antral MI and with normal postcibal MI.

**CONCLUSION:** Motor disorders of gastrum and duodenum is present in some patients with NUD, manifested as absence or delay of phase three in interdigestive cycle and postprandial antral hypomotility, impaired motility is a possible etiologic factor, but it is not the sole factor in pathogenesis of NUD.

**Key words:** Interdigestive; Postprandial antroduodenal motility; Non-ulcer dyspepsia

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