



## Gastric motility study on nonulcer dyspepsia among children

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### Abstract

**AIM:** To ascertain the rule of gastric motility in nonulcer dyspepsia (NUD) among children, we studied 26 cases of NUD with age range of 3.5-10 years old and 25 normal children of comparable age.

**METHODS:** We measured the gastric emptying of orange solutions and gastric motility using realtime ultrasonography by the method of Marzio.

**RESULTS:** The gastric emptying was delayed 61.53% in NUD children, the complete gastric emptying time (T) and half emptying

time (T1/2) of control group were  $43.42 \pm 7.32$  min and  $16.4 \pm 3.57$  min; And those of NUD group were  $54.95 \pm 11.16$  min, and  $27.08 \pm 2.43$  min, respectively. Gastric contraction dimensions and frequency were  $59.01 \pm 9.86$  mm and  $4.08 \pm 0.55$  time/min in control; And those of NUD group were  $43.7 \pm 9.73$  mm ( $P < 0.01$ ) and  $3.76 \pm 0.01$  time/min ( $P < 0.05$ ). Furthermore, in 28 children (NUD 18, normal 10), we observed domperidone effect on gastric emptying domperidone 0.5 mg/kg/dose). Time of gastric emptying before administration of domperidone was  $53.57 \pm 13.28$  min (T) and  $22.14 \pm 7.41$  min (T1/2), and after administration of the drug was  $12.74 \pm 4.61$  min and  $39.00 \pm 8.79$  min, respectively. The difference were all significant.

**CONCLUSIONS:** (1) Gastric motility dysfunction may be one of the causes of NUD in children. (2) Real time ultrasonography is a useful convenient way to assess gastric motility in children.

**Key words:** Children; Non-peptic dyspepsia

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