

Gastric motility study on nonulcer dyspepsia among children

Chun-Di Xu, Ping Wang, Jia-Yu Xu

Chun-Di Xu, Ping Wang, Jia-Yu Xu, Department of Pediatrics and Gastroenterology, Ruijin Hospital, Shanghai Second Medical University, Shanghai, China

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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 (T_{1/2}) of control group were 43.42 ± 7.32 min and 16.4 ± 3.57 min; And those of NUD group were 54.95 ± 11.16 min, and 27.08 ± 2.43 min, respectively. Gastric contraction dimensions and frequency were 59.01 ± 9.86 mm and 4.08 ± 0.55 time/min in control; And those of NUD group were 43.7 ± 9.73 mm (*P* < 0.01) and 3.76 ± 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 ± 13.28 min (T) and 22.14 ± 7.41 min (T_{1/2}), and after administration of the drug was 12.74 ± 4.61 min and 39.00 ± 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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