

## Analysis of 80 cases of radionuclide measurements of gastric liquid emptying

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### Abstract

**AIM:** Radionuclide measurement was accepted as the gold standard of gastric emptying. This examination was performed in 80 patients with dyspeptic symptoms in our hospital from 1993 to 1995. The aim was to study the changes of gastric emptying in patients with peptic ulcer of functional dyspepsia.

**METHODS:** The study included 36 patients with duodenal ulcer, 7 with gastric ulcer, and 37 with functional dyspepsia confirmed by endoscopy and pathological examination. Patients with pyloric stricture, cancerous change, and active gastritis were excluded. The patients were fasted for 12 h before the examination. 37 MBq  $^{99m}\text{Tc}$ -DTPA was diluted with 500 mL 5% type SPECT after the intake of the tracer. One graph was taken per 2 min. The patient was examined for 30 min. The graphs were transformed into time radioactivity curve by the computer with gastric emptying program. The gastric emptying

time 1/2 (GET 1/2) was able to be obtained. The normal GET 1/2 was  $12 \pm 3$  min.

**RESULTS:** Gastric emptying in 57 cases were abnormal, and in 55 cases were slower than in normal. The abnormal gastric emptying in patients with duodenal ulcer, gastric ulcer, and functional dyspepsia was 26 cases (26/36), 7(7/7), 22 (22/37) respectively. The results showed that there was abnormal gastric emptying in peptic ulcer disease and functional dyspepsia. There are many measurement methods in gastrointestinal motility. But it is expensive, it is not a route and follow up examination. The gastric emptying in the majority of the patients with duodenal ulcer was slower than in normal. The reason is that all the patient we selected had dyspepsia. The gastric emptying in all the patients with gastric ulcer was slower than in normal. But the number of the patients with gastric ulcer was small, further study was needed. In our study, all the patients with functional dyspepsia were clinically diagnosed as dysmotility like dyspepsia. But it did not coincide with emptying were improved by prokinetics. These drugs had no effects on the healing of peptic ulcer.

**Key words:** Prokinetics; Peptic ulcer; Dyspepsia

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