



## Clinical study on colonic transit test in patients with chronic constipation

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### Abstract

**AIM:** To clarify colonic motor abnormalities, we studied colonic transit time of patients with chronic constipation.

**METHODS:** Colonic transit time was carried out in 34 patients with chronic constipation and in 20 healthy subjects. Each subject was asked to withdraw laxative from three days before to end of examination. 20 radiopaque markers were ingested at 8 am before the day of test, and plain abdominal films were obtained at 24, 48, 72 h. Living habits and diet structure were instructed not to be varied during the test. According to gas in the bowel and the anatomy structure of colon, the number of markers in segmentary and total

colon was counted.

**RESULTS:** The normal colonic transit time was 20%, or less ingested markers still present after 72 h. By means of transit time study, 34 constipated patients were classified into 2 groups: 12 normal transit patients and 22 slow transit patients. There was no difference in colonic transit time between normal transit patients and controls ( $P > 0.05$ ). Patients with slow transit had more markers left in right colon, left colon and rectosigmoid colon at 48 h ( $4.23 \pm 3.50$  vs  $0.65 \pm 1.04$ ,  $6.46 \pm 4.64$  vs  $0.90 \pm 1.33$  and  $4.18 \pm 3.03$  vs  $1.65 \pm 2.32$ ,  $P < 0.01$ , respectively) and 72 h ( $1.82 \pm 2.44$  vs  $0.05 \pm 0.22$ ,  $4.41 \pm 3.26$  vs  $0.10 \pm 0.31$  and  $5.91 \pm 3.99$ ,  $P < 0.01$ , respectively). According to the transit index, 22 slow transit patients were divided into 3 types: colonic stasis 10 cases, outlet obstruction 8 cases and colorectal stasis 4 cases.

**CONCLUSION:** The study suggested that chronic constipated patients have abnormalities of colonic transit.

**Key words:** Colonic transit test; Chronic constipation

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