FROM EVIDENCE BASED MEDICINE TO PRACTICE: GUM CHEWING FOR POSTOPERATIVE RECOVERY OF GASTROINTESTINAL FUNCTION AFTER COLORECTAL SURGERY WITH INTERPROFESSIONAL TEAMWORK

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Background
Flatus was an important indicator for postoperative recovery of gastrointestinal function. Gum-chewing mimicked food intake to stimulate the vagus nerve and bowel movements.

Objective
We tried to confirm the efficacy of gum-chewing through the evidence approach and implement with interprofessional teamwork.

Material and Methods
1. Evidence Approach:
In the Pubmed, Cochrane and Embase databases, using MeSH term and Boolean logic combination (chewing gum AND (colorectal surgery OR colostomy) AND postoperative ileus) for literature search. Filters activated with randomized controlled trial (RCT), published from 2000 to 2018, humans. Finally 11 RCTs were selected to appraisal and showed the trend of improvement in the time to first flatus, start feeding, and discharge.

2. Implement:
The study involved 39 patients who underwent colorectal surgery between March and August 2018. In the gum-chewing group, 19 patients took three times a day on the first day after surgery until first flatus. 20 patients disagreed with gum-chewing were involved in the control group. Evaluation of the findings was done with analysis of covariance (ANCOVA).

Results
Compared with the control group, the time to first flatus and start feeding were shorter in the gum-chewing group (66.97 ± 24.78 h vs 54.82 ± 19.74 h, 91.53 ± 51.41 h vs 74.77 ± 21.54 h). However, the difference was not significant (p-value = 0.166, 0.283). The time to discharge was significantly shorter in the gum-chewing group (12.55 ± 5.96 d vs 9.16 ± 1.71 d, p-value = 0.047). Other influencing factor for the time to first flatus, start feeding and discharge was analyzed, for example, with or without promotility agents such as metoclopramide, not significant difference was found between two groups (p-value = 0.375, 0.162, 0.960).

Conclusion
Could evidence-based medicine lead to an equally satisfying practice? The implement was essential to find a major problem, for example, the core physician team had not participated in the beginning and missed many possible cases.