

Chapter 18

EVALUATION OF GASTRIC MOTILITY WITH PHYTOCID™-GT: A PILOT STUDY

BELCARO G., DUGALL M., LUZZI R.

IRVINE3 LABS, DIP SC MED OR BIOTEC, CH-PE UNIVERSITY

Phytocid™-GT (Alchem) is a natural product developed to treat dyspepsia; it includes Ginger and Turmeric and can be used as an anti-emetic; it also has a significant anti-inflammatory action.

Turmeric can modulate excessive peristaltic activity and it has been used for abdominal cramps and irritable bowel syndrome. Both Ginger (50 mg) and Turmeric (100 mg) are strong anti-oxidants and have a mild antimicrobial activity. Phytocid™-GT has been used against indigestion, motion sickness, oral infections, irritable bowel syndrome, in ulcerative colitis, pregnancy-related nausea and vomiting, nausea and in vomiting associated to gastroenteritis (as a supportive agent) and in chemotherapy-induced nausea and vomiting.

This supplement registry study evaluated the effects of one and two capsules of Phytocid™-GT on gastric emptying of 8 healthy individuals (mean age 32.4, all males) who used one capsule one day and two capsules the following day. A contrasting mix of water and air bubbles (300 ml) with a minimal quantity (5 ml) of vegetal oil has been drunk by the subjects under evaluation at 10 am.

The Phytocid™-GT capsule has been administered at least 30 minutes (9 am) before on an empty stomach with a minimal quantity of water to allow a better swallowing.

Ultrasound evaluations using a high-resolution Preirus ultrasound scanner was used to detect the time when the stomach was to be considered completely empty of the study mixture and when all the mixture has fully passed through the pylorus.

Previous, repeated measurements indicated that the measurement of the stomach emptying time in minutes could be standardized with a variability of less than 15% in time. The test has the advantage of being completely noninvasive and fast.

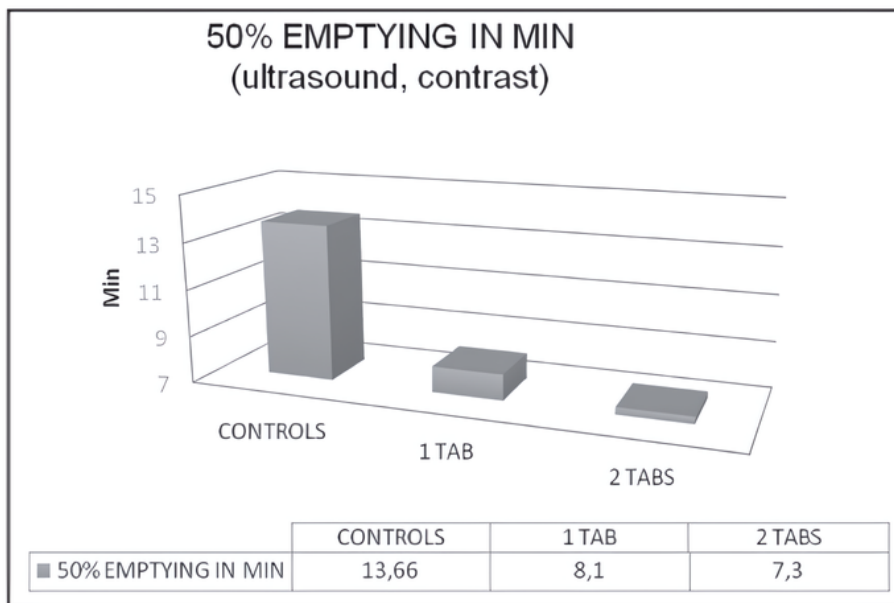


Figure 18.1. 50% emptying in tested groups.

During the test the subjects were sitting on a couch at a 45° angle.

The test was repeated the following day with ingestion of two capsules at 9 am and 9.30 and the ingestion of the contrasting mix at 10 am.

Figure 18.1 shows the significantly increased stomach emptying speed that was related to the dosage.

No side effects were observed. The tolerability was optimal.

RESULTS

The 50% emptying passed from 13.66;0.3 minutes at day zero (basal evaluation without any treatment) to 8.1;0.5 min with one capsule (day 1) and to a value of 7.3;0.5 min with two capsules (day 2). Of course, different types of meals and solutions may have different speeds of passage.

CONCLUSION

This preliminary observations study indicates that this supplement is effective in improving the stomach to empty faster and more effectively (in healthy subjects).

This pilot evaluation will be extended to older subjects and in some patients with dyspepsia. Also the next evaluations will also rely on the use of an endocapsule able to directly

show during the transit the video-images of the passage. The promising activity of PhytocidTM-GT appears to be clinically applicable to several common conditions – including dyspepsia – and to drug-related problems (i.e. nausea/vomiting induced by chemotherapy).