

## Neural mechanism of gastric motility regulation by acupuncture at gastric Back-Shu and Front-Mu points

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Acupuncture at gastric Back-Shu and Front-Mu points has a regulating effect on gastric motility. According to the theory of traditional Chinese medicine, Front-Mu points located on the abdomen and Back-Shu points located on the back. The application of acupuncture at a combination of Back-Shu and Front-Mu points, which is based on the theory of Yin and Yang and the pathway of Qi, has synergistic effect and good clinical effectiveness. It has been demonstrated that the combination of gastric Front-Mu and Back-Shu point is effective for the regulation of motility in clinical practice. However, studies on the regulation mechanism underlying those phenomena have been focused at the level of the spinal cord. Advances in the studies of Back-Shu and Front-Mu point combination focused on whether the superior nerve center involved in the regulation of zang-fu organs by this combinational acupuncture. In order to confirm whether this convergent effect could extend to the superior nerve center, we suggest a targeted convergence hypothesis: Gastric Shu and Mu point acupuncture signals gather not only in the spinal cord but also in a targeted way in the brain stem and hypothalamus in the higher central nervous system, achieving an integrative effect through the neural microcircuitry. Our previous studies found that gastric Shu and Mu may afferent signals primarily convey acupuncture input signals to different levels of the central nervous system, such as the spinal cord, medulla, brain stem, hypothalamus and sub-cortex. For the development of neuroimaging technique and brain science, we intend to investigate the neural mechanism of compatibility of gastric Shu and Mu point by fMRI, neural tracing and multi array electrode technique. It may also provide new ideas for research on compatibility of Back-Shu and Front-Mu points and the mechanism of central integration.

### Biography

Guo-ming Shen is a Doctoral Supervisor and the Dean of the Graduate School of Anhui University of Chinese Medicine in China. He has published more than 50 papers in reputed journals and has been serving as Editorial Board Member of several medical magazines.

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