

6th International Conference and Exhibition on

Traditional & Alternative Medicine

September 14-16, 2016 Amsterdam, Netherlands

Sensitized acupoints in gastric mucosal injury in the rat model display high expression of nociceptive neuropeptides

Xiang-Hong Jing, Wei He, Ming-Juan Han, Hong Shi, Xiao-Yu Wang, Ling Hu, Yang-Shuai Su, Xiao-Chun Yu and Bing Zhu
China Academy of Chinese Medical Sciences, China

Visceral injury has been shown to induce somatic sensitization due to neuroinflammation, but little is known about the changes in these somatically sensitized locations. Using gastric mucosal injury (GMI) model, we investigated the local histochemical changes around these somatically sensitized areas (sensitized acupoints). Evans Blue (EB) dye is injected through the tail vein, and the distribution of extravasated EB dots in the skin are observed and compared with the locations of acupoints. We detected the expression of neuroinflammatory mediator (calcitonin gene-related peptide (CGRP) and substance P (SP))-labeled nerve fibers, histamine (HA)-, serotonin (5-HT)-, and tryptase-labeled cells in EB dots. The EB dots induced by acute GMI were found in the skin over the back and abdomen, innervated mostly by the T9-11 dermatomere. The dots disappeared gradually during natural self-recovery of gastric mucosa from the injury. The consistent rates between EB dots and acupoints were BL20: 88.23%, BL21: 82.35%, DU6: 58.82%, BL17: 47.5%, RN12: 17.64%, RN13: 5.88% respectively. Furthermore, nociceptive neuropeptides SP and CGRP were expressed much higher in extravasated EB dots than that beside the EB dots or control, which were mostly distributed through the nerve fibers around both the vessels and the root of hair follicle. Meanwhile, mast cells gathered, degranulated and released HA and 5-HT around the vessels in areas within extravasated EB dots. We conclude that GMI results in somatic sensitization named sensitized acupoints, where an elevated SP and CGRP expressed in nerve fibers, as well as of HA and 5-HT released in mast cells.

Biography

Xiang-Hong Jing has completed her PhD in 2004 from China Academy of Chinese Medical Sciences. She is the Vice-Director of Institute of Acupuncture and Moxibustion, China Academy of Chinese Medical Sciences and Doctoral tutor. She has devoted to the research of acupuncture mechanism for more than 20 years. She has published more than 60 papers in reputed journals. So far 8 research projects including National Basic Research Programs of China are/were granted by Ministry of Science and Technology of China, National Natural Science Foundation of China and Natural Science Foundation of Beijing (as the principal investigator).

jingxh@mail.cintcm.ac.cn

Notes: