conferenceseries.com

Joint Event on

Down Syndrome, Autism, Brain Disorders & Therapeutics

October 21-22, 2019 | Tokyo, Japan

Effects of merancin hydrate, the main representative component of Zhiqiao-Houpu decoction, on depression-like behavior, gut motor, intestinal flora in acute stress rats

Han Yan[1], Jian Jun Xu[1], Shao Qi Shi[1], Ken Chen[1], Zhe Wang[1], Ping Ren[2] and Xi Huang[1]

[1]Nanjing University of Chinese Medicine, China

[2]Jiangsu Province Hospital of TCM, China

Background & Aims: Numerous studies have shown a strong link between brain (depression) and gut (gastric emptying and intestinal flora) and relations of the latter two and depression have been largely unclear. Our aim was to explore first or simultaneous effects of acute FST on one or both above; if so, we want to study above action of mechanism by our previous antidepressant and prokinetic MH whose regulation on flora is unclear.

Methods: In the previous experiment, we tested the hypothesis that a simple, rapid and sensitive Ultra-Performance Liquid Chromatography (UPLC) method has been developed for the simultaneous determination of eight constituents including narirutin, naringin, hesperidin, neoheperidin, Merancin Hydrate (MH), nobiletin, honokiol and magnolol in Zhiqiao-Houpu decoction and determination of MH in rat plasma following the oral administration of Zhiqiao-Houpu decoction (20 g/kg). We have confirmed that MH has good effects on antidepressant ($P<0.010$, prokinetic ($P<0.01$) and related anti-inflammation ($P<0.010$) and anti-oxidation ($P<0.01$) *in vivo*. Then we sequenced the intestinal flora in the V4 region of caecum contents in rats 24 hours after FST.

Result: We found that some of the bacteria such as proteobacteria, deltaproteobacteria, desulfovibrionales have significant change ($p<0.05$), but the overall flora balance did not change significantly. So bacterial flora changes, gut motor and immobile time experiments of contents in stomach, duodenum and cecum of rats were designed at different time points after stress (5 minutes, 30 minutes, 1 hour, 2 hours, 12 hours and 24 hours).

Biography

Han Yan is currently studying in Nanjing University of Chinese Medicine, China.

hanyan9507@163.com

Notes: