1-P-049

Poster Sessions

Effects of coriander (*Coriandrum sativum* L.) on GABA neuron in mouse brain

Jun Sakurai², Nobuo Izumo^{1,2}, Yu Kuwahara², Masaya Miyazaki², Kohsuke Hayamizu², Makoto Nakano^{1,2}, Yasuo Watanabe^{1,2}

¹*Yokohama University of Pharmacy, General Health Medical Center*, ²*Food chemistry / Functional food laboratory*

Coriander is taken up as a "new food materials" in Japan, although this has been used as folk remedies for Ebers papyrus, an ancient medical record in Egypt over 3000 years. And many reports documented that coriander has not central functions. In this study, we search for the mechanism of the central effects of coriander using a behavioral study and the RT-PCR. **Method:** ① ICR mice (male:6 weeks old) were used as experimental animals. Animal groups were divided into 4 groups such as water group and 3 groups of coriander (100, 200, 400mg/kg). ② Stages of sedation was controlled by the dosage of pentobarbital. ③ Central excitatory effects were indexed by pentetrazol (PTZ) convulsion. ④ Spontaneous activities of mice were measured at night. ⑤ Changes in GABA_A receptor, NMDA receptor, GABA transporter expressions were measured by RT-PCR. **Results:** ① A significant sedative effect was observed in the coriander group. However, there was no significant difference in diurnal activities. ② As a result of PCR, the suppression of GABA uptake in the brain was detected under PTZ administration in the coriander group. **Conclusion:** These results suggest that long-term continuous oral administration of coriander can cause the mild sedation due to the GABA neuronal system.