Synopsis of Original Research Paper

Functional physiological analysis of the effect of the scent of cherry blossoms on the brain

Fumiko Takenoya

Hoshi University School of Pharmacy and Pharmaceutical Sciences

We have focused on a low-temperature vacuum extraction method that can extract aroma components derived from natural products, extracting them with cell extracts (CE) from various plants, and performing functional evaluation so far, in order to utilize the pharmacological effects of various plants widely and effectively. Here, we used a technique of cold vacuum extraction to extract cell extracts (SCEs) from pupal flowers in order to exploit the potency and scent of pupal preferred by Japanese people. We discovered that its main component was benzaldehyde (BzA). We also found increased cerebral blood flow in the brain upon human exposure to SCE. In addition, the scent of SCE was reported an anti-stress effect and even an effect of hypereuphoria by promoting oxytocin secretion. In addition, we confirmed the physiological action of a single component of BzA, the main component of SCE. Consequently, BzA exposure to humans showed a marked increase in cerebral blood flow medial to the frontal lobe of the cerebral cortex. BzA exposure also measured the amount of various hormones secreted in saliva. These results confirmed a significant decrease in cortisol levels and a significant increase in secretory IgA and oxytocin. These data suggest that BzA, a major component of SCE, activates brain function, enhances immune function and provides euphoria. Moreover, the stress lowering effect of the patient was observed as a result of the aroma bathing of SCE in patients of the clinical field. In addition, there were no adverse events in the aroma bath verification of SCEs. These results suggest that SCE can be used in cosmetics and medical care, and are expected to be a material that can be applied to the healthcare of people.