## <sup>3<sup>rd</sup></sup> International Conference and Expo on Natural, Traditional & Alternative Medicine

September 24-25, 2018 | Montreal, Canada

## Analysis of changes in stress hormone concentration by stress and diet in rats

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This study was carried out to investigate the changes of stress hormone concentration in ICR rats according to stress and capsaicin diet during pregnancy. The experiment was divided into three groups of 5 ICR rats. The first group (G1) gave a general diet without stress, the second group (G2) caused stress and gave general diets, and the third group provided capsaicin-containing diets without stress. Stress was induced by repeating the restraint for 45 minutes on a bright light (about 6500 LUX) with regulated space three times a day. The corticosterone concentration was measured in the serum before the first stress and after the final stress. As a result, no significant concentration change was observed in all the groups compared to the control group (G1) before the stress application, and a significant increase was observed in the stressed group (G2) compared with the control group (G1) on the other side, there was no significant difference in the control group (G1) before and after the application of stress in an individual, and in the stressed group (G2), a significant increase was observed after stress application. In addition, a significant decrease in corticosterone levels was observed in the capsaicin feed group (G3) after feeding. In conclusion, elevation of corticosterone concentration was observed when stress was given to pregnant rat. Capsaicin has been reported to reduce stress in general, but for definite conclusions, additional items need to be evaluated in more individuals, and further studies will need to be made by modifying the experimental design.

## **Biography**

Miyeon Kim, MD, PhD, is an assistant professor of College of Korean Medicine, at Woosuk University, Jeonbuk, South Korea and working at the Department of Pediatrics, Woosuk University Hospital of Korean Medicine since 2013. She earned both her undergraduate degree and her Korean medical degree from Dong-eui University, Busan, South Korea. She completed a residency at Dong-eui University Hospital of Korean Medicine in Pediatrics (2005-2008). She is a specialist in pediatrics registered in the Ministry of Health and Welfare, Korea. She is the editorial board of the Journal of pediatrics of Korean medicine.

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