Abstract No: 521 Category 1 (3) Health Sciences

IN-VIVO ANTIOXIDANT ACTIVITY OF *RASNA SAPTHAKAYA* DECOCTION IN WISTAR RATS

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Rasna sapthakaya (RS) decoction is a mixture of seven Ayurvedic herbs and is used to treat chronic inflammatory joint diseases. The RS decoction is widely used in Sri Lanka and India. Reactive oxygen species induce lipid peroxidative tissue damage which has been implicated in the pathogenesis of various diseases. Lipid peroxidation is assessed indirectly by the measurement of the secondary products, such as malondialdehyde (MDA). The present study, evaluated the *in-vivo* anti-oxidant activity of *RS* decoction by Thiobarbituric acid reactive species (TBARS) assay in the rats. For this study, healthy, two months old Wistar male rats were randomly selected. The rats were divided into two groups named as test and control (n=6 in each). The test rats were orally administered with freshly prepared RS decoction (40 mg/kg) for 28 consecutive days and the control group received distilled water. Blood samples were collected at Day 0 and Day 29 from the study rats to evaluate the serum malondialdehyde (MDA) level by TBARS assay.

On the 29th day, the serum MDA level of the control and test group were 4.71 ± 0.07 µmol/l and 1.09 ± 0.04 µmol/l ($p < 0.002$) respectively and showed a statistically significant reduction of serum MDA concentration from the Day 0 value of the test group. The percentage anti-oxidant index (AI %) was 78.1 %.

Thus we provide evidence that *RS* decoction exerts statistically significant effects by inhibiting the malondialdehyde formation *in-vivo*. It can be concluded that the *Rasna sapthakaya* decoction possess potent anti-oxidant properties which is demonstrated in this animal study.

Financial assistance given by University Grants Commission, Sri Lanka (UGC/ICD/RG/02/2012/05) is acknowledged.