

synthesis and inhibition of collagen degradation, and antifibrotic effect is delaying or inhibition of new collagen synthesis and deposition in liver tissue. In this study, we investigated the antifibrotic and antioxidative effect of *Solanum lycopersicum* (SL) in liver fibrosis induced rats. Methods: Rats were randomly divided in three groups (normal, CCl₄ and CCl₄-SL group) and were received 0.6 ml mixture of CCl₄ and olive oil (1:1 v/v) 3 times/week for 4 weeks except of the normal group. And the rats in CCl₄-SL group were treated with 0.3 mg/day/rat in 4 weeks. After experiment, the liver tissues and sera were used for the measurement of hydroxyproline (hyp), malondialdehyde (MDA), superoxide dismutase (SOD) and enzyme activity as the liver function parameters. In addition, RNA expression of collagen \pm 1(III) and \pm 1(IV) was observed by RT-PCR. Results: The value of parameters such as liver function, lipid peroxidation protection and collagen deposition were significantly elevated in the CCl₄ and CCl₄-SL group compared to the normal group (p<0.0001). The significantly lower level of GOT, GPT, ALP, BUN and total-bilirubin in sera and the concentration of MDA and hyp in liver tissue showed in the CCl₄-SL group than in CCl₄ group (p<0.05-0.0001). The higher activity of SOD appeared in CCl₄-SL group than in the CCl₄ group, but the significance between two groups was not observed. And decreased mRNA expression of collagen \pm 1(III) as a parameter of collagen synthesis and increased mRNA expression of collagen \pm 1(IV) as a parameter of collagen degradation were observed in CCl₄-SL group compared to the CCl₄ group. Conclusion: *Solanum lycopersicum* could be in possession of antioxidative action, antifibrotic effect and the improvement of liver function.

[PA1-31] [2003-10-10 14:00 - 17:30 / Grand Ballroom Pre-function]

Long-term measurement of physiological cardiovascular parameters using telemetry system in dogs.

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With the issuance of the ICH "Guidance for industry S7A Safety Pharmacology Studies For Human Pharmaceuticals" in July 2001 came the preference for the use of unanesthetized animals when evaluation the safety profile of new pharmaceutical agents. Telemetry provides a means of obtaining measurements of physiological functions in conscious animals without the problems associated with classical cardiovascular measuring methods. The Korea Institute of Toxicology (KIT) established the telemetric measurement of cardiovascular parameters, such as Blood pressure, Heart rate, ECG (PR, RR, QRS, QT and QTcB interval) under GLP conditions. In this study, we carried out the continuous monitoring of cardiovascular parameters for extended periods of time by the telemetered beagle dogs to ensure the validity of this system. We founded that the obtained data are constant and accurate throughout the measuring time. Therefore it could be concluded that our telemetry system is able to provide the appropriate measurements and that the signals being detected by the systems are highly accurate.

[PA1-32] [2003-10-10 14:00 - 17:30 / Grand Ballroom Pre-function]

Pinacidil causes depressor action, catecholamine release and vasorelaxation in the normotensive rat

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The present study was conducted to investigate the effects of pinacidil, a potassium channel opener, on arterial blood pressure, catecholamine release and vascular contractile responses in the normotensive rats and to establish the mechanism of action. Phenylephrine (an adrenergic α_1 -receptor agonist) and high potassium (a membrane-depolarizing agent) caused greatly contractile responses in the isolated aortic strips, respectively. These phenylephrine (10⁻⁵ M)-induced contractile responses were dose-dependently depressed in the presence of pinacidil (25 ~ 100 μ M). Also, high potassium (5.6 x 10⁻² M)-induced contractile responses were greatly inhibited in the presence of pinacidil (25 ~ 100 μ M) in a dose-dependent fashion. Pinacidil (1 ~ 10 μ g/kg) given into a femoral vein of the normotensive rat produced a dose-dependent depressor response, which is transient (data not shown). Interestingly, the infusion of pinacidil (3 ~ 30 μ g/kg/30min) made a significant reduction in pressor