

Endotoxin- Induced Thrombosis in Rats

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The concerns about diseases of a cardiovascular system have increased with the rise of living standard and the trend of advanced age. Among these, the thrombus causes the serious disease like apoplexia, cerebri and myocardial infarction. Thrombosis is caused by the injury of endothelium and the alteration in normal blood flow. Endotoxin is the product from gram negative bacteria, and protein-lipo- polysaccharide is known as a main component of it. It is used in experiment for antithrombosis activity screening. In our study, we injected endotoxin(4000EU/kg, i.v.) in rats at 1hr after administration of *Carthamus tinctorius* L. Semen butanol fraction(500mg/kg, p.o.). To investigate activities of *Carthamus tinctorius* L. Semen butanol fraction for blood coagulation system, we measured blood clotting time, prothrombin time, fibrinogen and fibrinogen degradation products *in vivo*, antiplatelet aggregation activity and the stabilizing effect on heat-induced hemolysis *in vitro*. And then we measured superoxide dismutase activity, glutathione content, glutathione S-transferase activity and malon dialdehyde content to figure out the mechanism of anticoagulation. As a result, *Carthamus tinctorius* L. Semen butanol fraction has antiplatelet aggregation activity *in vitro*, delays blood clotting time and prothrombin time, and decreases fibrinogen and fibrinogen degradation products *in vivo*. Also, it increases superoxide dismutase activity, glutathione content and glutathione S-transferase activity, and decreases malon dialdehyde content. On the basis of our study, we may propose that a blood coagulation system and cell injury is suppressed by the antithrombosis effect of *Carthamus tinctorius* L. Semen.

[PA4-10] [10/19/2000 (Thr) 10:00 - 11:00 / [Hall B]]

Analysis of Benzophenone and 4-Nitrotoluene in Water, Sediments and Soils by Gas Chromatography/Mass Spectrometry

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The benzophenone (BP) and 4-nitrotoluene (4-NT) classified as endocrine disrupting chemicals were determined in water, sediment and soil. The modified SPEED98 method for water samples and ultrasonic extraction of US EPA (method 3550B) method for sediment and soil samples were used for the analysis of BP and 4-NT. n-Hexane was used for the extraction of BP and 4-NT in the water, sediment and soil samples. 2 μ l of the concentrated solution (0.3 ml of final volume) was applied to GC/MSD. The method detection limits of BP were 10 ng/l for water samples, and 0.25 ng/g and 1 ng/g for sediment and soils. For 4-NT, method detection limits were 5 ng/l for water samples and 1 ng/g for sediment and soil samples. As a result, BP concentrations were ranged from 24.4 ng/l to 53.6 ng/l at 7 sites of water samples and from 10.3 ng/l to 13.9 ng/l at 2 sites of soil samples, which were higher than those of water and soil blanks. 4-NT was not detected in water, sediment and soil samples.

[PA4-11] [10/19/2000 (Thr) 10:00 - 11:00 / [Hall B]]

Effect of glycolic acid alone or combination with UVB on skin irritation and inflammation in guinea pigs

Hong JT, Park KS^o, Kim HJ, Kim EJ, Jung KM, Ahn KS, Lee JK, Man KT, Kim DJ, Kim YK and Lee