microsomes.

[PD4-29] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Alternation of plasma F_2-isoprostanes before and after hemodialysis in patients with atherosclerosis in end-stage renal disease

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F_2-isoprostanes are derived *in vivo* principally from the formation of positional peroxyl radicals of arachidonic acid, endocyclization to prostaglandin G_2-like structures, and reduction to PGF_2-like compounds. F_2-isoprostanes have been proposed as biomarkers of lipid peroxidation, oxidative stress status, and oxidation of low density lipoprotein (LDL) in atherogenesis. Especially, elevated 8-iso-PGF_{2a} is known as a useful clinical biomarker of oxidative stress in end-stage renal disease (ESRD) patients receiving hemodialysis (HD). Therefore, we studied about alternation of plasma F_2-isoprostanes on before and after hemodialysis in patients with atherosclerosis in ESRD using gas chromatography-tandem mass spectrometry (GC/MS/MS). Plasma concentrations F_2-isoprostanes were significantly higher in post-hemodialysis than pre-hemodialysis in atherosclerosis ($P<0.05$). This may suggest that F_2-isoprostanes is affected with oxidative stress by hemolysis treatment in atherosclesis.

[PD4-30] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Methyl carboxylates of naphtho[1,2-b]furan and naphtho[1,2-b]pyran from the roots of *Rubia akane*

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Rubia akane (Rubiaceae) is a perennial vine plant and generally grows at the mountain, field and fence of Korea, Japan, China and Taiwan. This plant grows about two meters and has empty stem and red roots. The roots of this plant have been used as a Korean traditional medicine for the treatment of cough, the stone in the bladder and kidney, inflammation of the joints, uterine hemorrhage and uteritis.
From the screening experiment, *Rubia akane* exhibited anti-cancer activity. MeOH extract of the roots of this plant was subsequently
fractionated into four parts: methylene chloride, ethyl acetate, n-butanol and water fractions. Methylene chloride fraction showed
cytotoxicity against HT-29 and MCF-7 cell lines, and DNA Topoisomerase I inhibitory activity at the concentration of 5 ㎍/㎖ and DNA Topoisomerase II inhibitory activity at the concentration of 50 ㎍/㎖. Ethyl acetate fraction showed DNA Topoisomerase I inhibitory activity at the concentration of 5 ㎍/㎖ and DNA Topoisomerase II inhibitory activity at the concentration of 50 ㎍/㎖.
We isolated methyl carboxylates of naphtho[1,2-b]furan and naphtho[1,2-b]pyran from the methylene chloride fraction.