

traffic accident. alcohol concentration of blood is analyzed in Korea, but drug tests (medicine, narcotic, alcohol) are submitted in Australia. In crimes of violence (2 examples), a traffic and a murder accident, drug testing in urine and blood was performed. Alcohol, methamphetamine, heroin, cocaine, cannabis, barbiturate derivatives and benzodiazepine derivatives were not detected, but DEX and its metabolite dextrorphan were detected in urine or blood. Quantification of DEX in urine and blood were quantitated by GC/TSD and GC/MS, respectively. First, in a murder-suspect (29-year-old, male) the quantitative contents of DEX were 8.9 $\mu\text{g}/\text{mL}$ in urine, 0.6 $\mu\text{g}/\text{mL}$ in blood. Second, in a heavy traffic accident (34-year-old, male), the quantitative contents of DEX were 38.1 $\mu\text{g}/\text{mL}$ in urine, 2.1 $\mu\text{g}/\text{mL}$ in blood. Therefore, drug testing of medicine and narcotic as well as alcohol have to be forced in crimes of violence, murder and traffic accidents.

[PD4-3] [10/18/2002 (Fri) 13:30 - 16:30 / Hall C]

Development of economic preparative method of (S)-(+)-enantiomer of arylpropionic acids

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Many of the chiral NSAIDs are marketed as racemates. There is an increasing interest in developing the enantiomerically pure forms of the NSAIDs because the anti-inflammatory activity of NSAIDs have previously been shown to be largely stereospecific for the (S)-(+)-enantiomer. Therefore, simple and economic preparative method to identify the (S)-(+)-enantiomer of NSAIDs (arylpropionic acids) as diastereomeric solvation complex was developed using several chiral solvating agents by recrystallization of racemate and solvent fractionation. Enantiomeric purity was determined by chiral HPLC system using Chiralcel OD-H and Chiralpak AD column and by ¹H-NMR.

[PD4-4] [10/18/2002 (Fri) 13:30 - 16:30 / Hall C]

Simultaneous determination of corticosteroids in a herbal medicinal preparation by GC-MS

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The determination method for 11 corticosteroids (betamethasone, cortisol, cortisone, cortisone acetate, dexamethasone, cortisol acetate, isoflupredone acetate, methylprednisolone, prednisone, prednisolone, and triamcinolone acetonide) in a herbal medicinal preparation (Sibjeondaibotang) by a gas chromatography-mass spectrometric (GC-MS) method with selected ion monitoring (SIM) mode is described. Samples (4 mL) were extracted by liquid-liquid extraction with diethyl ether. The residues were then evaporated, purified, derivatized, and injected into the GC-MS system. This report exhibits recovery range (38.2 ~ 67.9 %), quantitation limits (0.1 ~ 1.2 $\mu\text{g}/\text{mL}$), and correlation coefficients (0.9685 ~ 0.9999) for corticosteroids, which estimated from validation data using cortisol-d₄ as the internal standard.

[PD4-5] [10/18/2002 (Fri) 13:30 - 16:30 / Hall C]

Assay Validation of Lansoprazole in Human Plasma

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A simple, rapid and reliable high performance liquid chromatography (HPLC) method has been developed for the