

mode using the electrospray ionization source maintained at 300°C. Nitrogen was used as the nebulizer, curtain, collision and auxiliary gas. Ambroxol and domperidone were detected by MS/MS using multiple reaction monitoring(MRM). Ambroxol gave a parent molecule([M+H]⁺) at m/z 379 and a corresponding product ion of m/z 264. Detection of ambroxol was accurate and precise, with a limit of detection of 0.01ng/mL in plasma. The calibration curve for ambroxol in human plasma was linear in a concentration range of 0.1ng/mL – 200ng/mL for plasma. This method has been successfully applied to determined the concentration of ambroxol in human plasma from pharmacokinetic and relative studies.

[PD4-6] [04/19/2002 (Fri) 10:00 – 13:00 / Hall E]

Studies on development of analytical methods for the official compendium drugs. –
Cholic acid and its derivatives

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A high performance liquid chromatography method has been developed and validated for the determination of cholic acid and its derivatives such as dehydrocholic acid (DHCA), ursodesoxycholic acid (UDCA), desoxycholic acid (DOCA), chenodeoxycholic acid (CDCA) and lithocholic acid (LCA) in pharmaceuticals for quality control purpose. The linear gradient elution of 200 mM phosphate buffer (pH 3.0) and acetonitrile was available for separating 6 cholic acid derivatives using octadecylsilan silica column at 45°C. UV detection was set at 210nm. Selectivity, linearity, range, repeatability, precision and accuracy showed good result. The detection limit of cholic acid was 12.3 µg/mL, DHCA 0.03 µg/mL, UDCA 39.8 µg/mL, DOCA 31.2 µg/mL, CDCA 35.4 µg/mL and LCA 46.2 µg/mL. This new developed method would be applicable to quality control for cholic acid derivatives in pharmaceuticals.

[PD4-7] [04/19/2002 (Fri) 10:00 – 13:00 / Hall E]

Chiral recognition of 18-crown-6 tetracarboxylic acid as a chiral selector determined by
NMR spectroscopy

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We recently reported that a new HPLC chiral stationary phase prepared by bonding (+)-(18-crown-6)-2,3,11,12-tetracarboxylic acid (18-C-6-TA) has been successfully employed in resolving various racemic compounds containing a primary amino functional group. Related to these results, in this study we performed detailed NMR studies for each enantiomer of phenylglycine and phenylglycine methyl ester with 18-C-6-TA to investigate the chiral recognition mechanism of the diastereomeric complexes in solution state. These NMR results were consistent with the chromatographic data obtained on chiral HPLC.

[PD4-8] [04/19/2002 (Fri) 10:00 – 13:00 / Hall E]

Quantitative analysis of Letosteine in film-coated tablet by HPLC

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Letosteine(Viscotiol), a cyclic cysteine derivative, is used in treatment of bronchitis.

Handok Pharmaceuticals, Co. Ltd have manufactured Letozol film-coated tablet with letosteine as a active ingredient. We have coated this product using enteric coating materials for taste and smell masking.