

[PD4-25] [ 2003-10-10 14:00 - 17:30 / Grand Ballroom Pre-function ]

### **Study of the Optimal Condition for Maximum Extraction Efficiency in Armeniaceae Semen Powder**

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Armeniaceae Semen is a seed of *Prunus armeniaca* Linne var. *ansu* Maximowicz, which belongs to Rosaceae family. It contains amygdalin and fatty oil and is widely used to treat asthma, dyspnea and edema. It was reported that D-amygdalin in Armeniaceae Semen undergoes hydrolytic reaction by emulsin when using water, and especially it is almost decomposed when extracting from powder type. We set up a condition where we can achieve the maximum extraction yield through the study of the methods to restrain emulsin from causing hydrolysis of D-amygdalin in Armeniaceae Semen in the aqueous solution and to prevent D-amygdalin from being converted into neoamygdalin. We also conducted quantitative analysis and separation of D-amygdalin and neodamygdalin through the Reversed-phase HPLC method using C18 column. HPLC condition as follows  
Column : Synergi 4 $\mu$  Hydro-RP 80 Å (4.6mm $\times$ 250mm) Mobile Phase : 10mM Sodium Phosphate buffer (pH 3.5) containing 8.5% Acetonitrile Column Temperature : 10 $^{\circ}$ C Wavelength : 214nm

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### **Construction of Database and Analysis of Specifications of Pharmaceutical Agents Listed in Korean Compendiums**

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Several Compendia are effective in relation with production and supply of pharmaceutical agents in Korea. Those compendia exist only in printed documents, which are not suitable for the analysis of their contents and inter-relationship among them when they have specifications on the same or related pharmaceutical agents. For the analysis of contents of Korean compendia, database system is designed and all of the available data are entered into relational database system. Every specification was analyzed into several database tables, fields and relations between tables. All of the reagents and standard materials specified in the compendia also analyzed into organized database tables, fields and relations with specifications of pharmaceutical agents. The database program was created with Microsoft Access for initial construction of database and upsized to Microsoft SQL server version for network access of the database. The poster will give architecture of database and some statistical aspect of specifications and reagent usages.

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### **Quality Control of Adenophorae Radix**

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Adenophorae Radix, the roots of *Adenophora triphylla* var. *japonica* Hara (Campanulaceae) is known to be an anti-inflammatory and antitussive drug used for the treatment of lung disease. However quality control method is not established yet. This study is to establish the quality control method of Adenophorae Radix. From the roots of this plant, we isolated (6R,7R)-E,E-tetradeca-4,12-diene-8,10-diyne-1,6,7-triol (1) as a marker compound for the quality control and determined its content by HPLC-UV detector. The content of 1 in *Codonopsis radix* is very low, therefore it can be used as a marker compound to distinguish *Codonopsis radix* from Adenophorae radix. Furthermore, 1 is easy to analyze by HPLC, 1g of Adenophorae radix was enough to analyze it. Analytical condition of 1 using HPLC was established as follows ; column : RP-18 column, eluent : gradient elution of