更多期刊、圖書與影音講座，請至【元照網路書店】www.angle.com.tw

藥物食品檢驗局調查研究年報. 12：81. 1994.
Ann. Rept. NLFD Taiwan R.O.C. 12：81. 1994.

DETERMINATION OF LIQUIRITIN, GLYCYRRHIZIN, HESPERIDIN, CINNAMIC ACID, CINNAMALDEHYDE, HONOKIOL AND MAGNOLOL IN TRADITIONAL CHINESE MEDICINAL PREPARATION WUU-JI-SAN BY HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY

Yuh-Chuang Lee, Cheng-Yu Huang, Kuo-Ching Wen* and Tsi-Tee Suen

National Laboratories of Foods and Drugs, Department of Health, Executive Yuan, 161-2 Kuen-Yang Street, Nankang, Taipei, Taiwan, Republic of China

ABSTRACT

A high-performance liquid chromatography method for the determination of liquiritin, glycyrrhizin, hesperidin, cinnamic acid, cinnamaldehyde, honokiol and magnolol in a traditional Chinese medicinal preparation Wuu-Ji-San, which contains Glycyrrhizae Radix, Citri Leiocarpae Exocarpium, Aurantii Fructus, Cinniamomi Ramulus and Magnoliae Cortex, was established. The samples were separated with a Cosmosil 5C18-AR column by linear gradient elution using 0.03% phosphoric acid (v/v)- acetonitrile (0 min 95:5, 52 min 30:70) as the mobile phase at a flow-rate of 1.0 ml/min and the eluent was detected at 254nm. n-Propyl benzoate was used as the internal standard, seven regressive equations showing linear relationships between peak area ratios of each marker to n-propyl benzoate and concentrations were obtained. The recoveries of the titled markers were 84.77%, 87.07%, 79.81%, 72.71%, 72.72%, 77.15% and 73.74%, respectively. The coefficients of variation were less than 5% (n=5). Very satisfactory and reproducible results were obtained within 52 min for simultaneous quantitation of seven markers. Different processes such as concentrating by reduced-pressure evaporation, freeze-drying and spray-drying were studied concerning their effects on marker contents. It showed minor effect on most markers except cinnamic acid and cinnamaldehyde. Three commercial concentrated products of Wuu-Ji San were also analysed. The contents of marker substances in commercial preparations were quite different from those in standard decoction.

KEY WORDS:
liquiritin, glycyrrhizin, hesperidin, cinnamic acid, cinnamaldehyde honokiol, magnolol, Wuu-Ji-San, Glycyrrhizae Radix, Citri Leiocarpae Exocarpium, Aurantii Fructus, Cinniamomi Ramulus, Magnoliae Cortex, HPLC.

原發表於國際色層分析研討會. 1994.5.8. 美國. 明尼蘇達州.