



Combination of Fingerprint Analysis and Multiple Compounds Determination for the Quality Control of Sanhuang Tablet by HPLC-DAD

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SUMMARY. A simple and reliable high performance liquid chromatography (HPLC) with diode array detector (DAD) was developed both for fingerprint analysis (FA) and simultaneous quantitative determination of ten bioactive constituents (scutellarin, baicalin, berberine hydrochloride, baicalein, aloe-emodin, wogonin, rhein, emodin, chrysophanol, and physcion) in Sanhuang Tablet (SH-T) by optimizing the extraction, separation and analytical conditions of HPLC-DAD. For FA, 38 peaks were selected as the characteristic peaks to evaluate the similarities of different samples collected from different manufacturers. The similarities of 14 SH-T samples from 12 manufacturers were beyond 0.80 indicating that samples were consistent to some extent, whereas the results from the quantitative data showed that the contents of some marker compounds were significantly different from manufacturer-to-manufacturer. These results indicate that this multiple components determination (MCD) method in combination with chromatographic fingerprint analysis is suitable for quality control of SH-T.

KEY WORDS: Fingerprint analysis, High performance liquid chromatography, Multiple components determination, Sanhuang tablet.

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