

Comparison on Pharmacokinetics of Three Lignans in the Fruits of *Schisandra chinensis* in Normal and Alcoholic Liver Injury Rats

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SUMMARY. This study was carried out to compare pharmacokinetics of schisandrin, deoxyschisandrin, and schisandrin B from *Schisandra chinensis* in normal and alcoholic liver injury (ALI) rats. The chromatography was eluted with mobile phase consisted of acetonitrile and 0.1% formic acid-water solution at the flow rate of 0.35 mL/min by gradient elution. Multiple-reaction monitoring (MRM) scanning mode was employed for quantification with switching electrospray ion (ESI) source polarity in positive mode. The pharmacokinetic parameters were calculated by using PKSolver V2.0 software. Absorption of schisandrin and schisandrin B are slow under the state of alcohol-induced liver damage, C_{max} , AUC_{0-t} , and $AUC_{0-\infty}$ are significantly decreased. Alcohol-induced liver damage can affect the pharmacokinetic behaviour of lignans in the fruits of *Schisandra chinensis*.

RESUMEN. Este estudio se realizó para comparar la farmacocinética de schisandrina, desoxisquisandrina y schisandrina B de *Schisandra chinensis* en ratas con daño hepático normal y alcohólico (ALD). La cromatografía fue eluida con una fase móvil consistente en acetonitrilo y 0,1% de solución de ácido fórmico en agua a una velocidad de flujo de 0,35 mL/min por elución en gradiente. El modo de escaneo de monitoreo de reacción múltiple (MRM) se empleó para la cuantificación con fuente de polaridad de iones de electrospray (ESI) en modo positivo. Los parámetros farmacocinéticos se calcularon utilizando el software PKSolver V2.0. La absorción de schisandrina y schisandrina B son lentas bajo el estado de daño hepático inducido por alcohol, C_{max} , AUC_{0-t} , y $AUC_{0-\infty}$ disminuyen significativamente. El daño hepático inducido por el alcohol puede afectar el comportamiento farmacocinético de los lignanos presentes en los frutos de *Schisandra chinensis*.

KEY WORDS: lignans, pharmacokinetics, *Schisandra chinensis*, UPLC-MS/MS

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