



## Metabolomics Analysis of Lasiodin-Related Potential Drug-Drug Interaction and Clinical Therapy of Lasiodin towards Nasopharyngeal Carcinoma

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**SUMMARY.** Lasiodin-related potential drug-drug interaction and clinical therapy of lasiodin towards nasopharyngeal carcinoma were investigated in this study. *In vitro* inhibition of lasiodin towards the metabolism of irinotecan was investigated. Metabolomics-based analysis of serum was carried out towards healthy volunteers, treated and untreated nasopharyngeal carcinoma with lasiodin-containing *Rabdosia serra* tea. The results showed that lasiodin inhibited 30% activity of SN-38 glucuronidation. Metabolomics analysis showed that treatment with lasiodin-containing *R. serra* tea treatment presented the elevation of glutamic acid and reduction of glutamine in patients with nasopharyngeal carcinoma. In conclusion, lasiodin-related potential drug-drug interaction and clinical therapy of lasiodin towards nasopharyngeal carcinoma were demonstrated in the present study.

**RESUMEN.** En este estudio fueron investigadas la interacción fármaco-fármaco potencial relacionada con lasiodin y la terapia clínica de lasiodin en el carcinoma nasofaríngeo. Se estudió la inhibición *in vitro* de lasiodin en el metabolismo de irinotecan. El análisis metabolómico del suero se llevó a cabo en voluntarios sanos, con carcinoma nasofaríngeo tratado y sin tratar con té de *Rabdosia serra* conteniendo lasiodin. Los resultados mostraron que el lasiodin inhibió 30% de la actividad de glucuronidación de SN-38. El análisis metabolómico mostró que en pacientes con carcinoma nasofaríngeo el tratamiento con *R. serra* que contiene lasiodin provocó una elevación del contenido de ácido glutámico y reducción de glutamina. En conclusión, la potencial interacción fármaco-fármaco relacionada con lasiodin y la terapia clínica de lasiodin hacia el carcinoma nasofaríngeo se ha demostrado en el presente estudio.

**KEY WORDS:** Drug-drug interaction, lasiodin, irinotecan, nasopharyngeal carcinoma

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