Determination of metabolites from Gynostemma pentaphyllum in rat urine and faeces by HPLC-MS

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Gynostemma pentaphyllum contains many biologically active phytochemicals which have been demonstrated to be effective against chronic diseases. As in vivo anti-tumor experiments of Gynostemma pentaphyllum extract (GP) show much stronger antitumor activities than in vitro, it is important and necessary to understand the metabolites of GP. GP was orally administrated to the Sprague–Dawley rats and the urine and faeces samples were extracted with methanol, followed by purification with a C18 cartridge to elute the former with methanol. 13 metabolites were separated by an Inertsil ODS-P column and a gradient mobile phase of acetonitrile and 0.01% formic acid in water by LC-MS with ESI mode and IT-TOF (LC-MS/MS). As a result, after oral administration, a total of thirteen metabolites of GP were assigned both from the rat urine and faeces.

Biography

Rando Porosk is a PhD student at University of Tartu, Estonia. He is a Specialist of Mass Spectrometry and Biochemistry at Institute of Biomedicine and Translational Medicine, Department of Biochemistry. Being part of the medical metabolomics research team, he is focusing on “Antioxidative peptides, oxidative stress and mass-spectrometry”. He has published two papers in scientific journals and is a member of Estonian Biochemical Society.

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