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P71 Comprehensive HPLC-DAD-(ESI-)MS/MS characterization and comparison of bioactive molecules from different parts of *Ganoderma lucidum* sporocarps

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Ganoderma lucidum is a well-known medicinal mushroom, both historically and currently. Driven by the ethnopharmacological prospect and the crescent body of scientific evidence that associates *G. lucidum* intake with health, the interest in its secondary metabolites has been further fostered. Whereas most research on medicinal mushrooms has focused on the comprehensive identification and yields of metabolites throughout their different growth phases, the distribution of those compounds along the sporocarps (fruiting bodies) in the mushroom's antler growth phase remains poorly investigated. This study aimed to directly compare the chemical composition of the exterior skin and interior flesh of *G. lucidum* sporocarps. Dried samples provided by Käapa Biotech (Finland) were homogenised and subjected to ultrasound-assisted extraction with ethanol:H_2O (80:20, v/v) at an amplitude of 47% for 15 min. Extracts were analysed in an HPLC-DAD-(ESI-)MS/MS system. Sixty-two compounds were tentatively identified in both extracts and comprised primarily lanostane-type triterpenes, besides six phenolic compounds. Among the triterpenes, 20 lucidenic and 16 ganoderic acids were found, with Lucidenic acid F and Ganoderic acid D being the major compounds in the flesh and skin. The overall chemical profile was the same regardless of the sporocarp part analysed, but the proportion among the compounds was considerably different. Interestingly, whereas the total triterpene content of the outer part exceeded 3 times that of the inner part, both presented equivalent amounts of total polyphenols. Our results indicate a similar profile but a higher concentration of compounds in the skin when compared to the interior biomass of fruiting bodies. This is the first time a study has examined the variations of triterpenic components between different parts of *G. lucidum* sporocarps.

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