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## Bioaccessibility studies related to antioxidant phenolic extracts from two edible species of the genus *Hericium*

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Mushrooms are rich sources of nutrients, but also of bioactive molecules such as phenolic compounds. Phenolic acids are among the major low molecular weight bioactive components usually found in mushroom species, contributing to their antioxidant properties [1]. Following the ingestion, these molecules have to be released from the food matrix and further transformed by the organism, to become accessible and exert their bioactive properties [2]. Several *in vitro* methodologies have been developed in order to evaluate the bioaccessibility of bioactive compounds, proving to be easy, cheap and reproducible, being possible to evaluate the digestive stability of the food constituents [3]. Herein, two wild edible mushroom species originated from Northeast Portugal (*Hericium erinaceus* (Bull.) Persoon and *Hericium coralloides* (Scop.) Pers.), were analysed for their nutritional value, detailed chemical composition and antioxidant properties. Furthermore, in order to evaluate the bioaccessibility of the compounds responsible for the mushrooms antioxidant properties, a digestion of the dry powder and phenolic extracts was performed under *in vitro* conditions. The *Hericium* species showed similar chemical profiles (except for tocopherols), varying only in the concentration of these compounds. The phenolic extracts presented the highest antioxidant activity that is in agreement with the highest concentration in phenolic acids found in those samples before *in vitro* digestion. This means that after *in vitro* gastrointestinal digestion, the bioactive compounds can suffer structural changes (losing the OH groups responsible for the antioxidant activity) that decreased the antioxidant properties. Nevertheless, they are bioaccessible and still display antioxidant activity.

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