Effects of the Aqueous Extract of *Agaricus blazei* (Murrill) on the Hepatic Glycogen and Lipid Contents in Rats Submitted to Injury by Paracetamol


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*Agaricus blazei*, a mushroom originary from Brazil, is largely studied due to its medicinal properties. The purpose of the present work was to evaluate the effects of an aqueous extract of *A. blazei* on the liver glycogen and lipid contents in rats submitted to injury by paracetamol. Male *Wistar* rats were treated orally with the *A. blazei* extract (200 mg/kg). This aqueous extract has the following composition (µg/mg extract): total phenolic compounds (27.62±0.02), total flavonoids (5.53±0.010), total carbohydrates (245.06±27.92), reducing carbohydrates (111.60±3.60), total proteins (22.33±0.33) and free amino acids (81.50±2.50). After 21 days, the rats received orally a single paracetamol dosis (2 g/kg) to induce hepatic injury. After 48 hours, all animals were decapitated and the liver used for determining the glycogen and lipid contents. The glycogen levels of livers from rats injected with paracetamol, decreased to 202.26±4.53 µmol glucosyl units per gram when compared to control rats (260.37±16.94 µmol/g). In paracetamol injected rats which had been previously treated with the extract the levels of hepatic glycogen were 223.82±21.47 µmol/g, meaning thus a partial restoration. The total lipids were not affected by paracetamol injury, but the cholesterol levels increased (84.49±5.03 µg/gram total lipids) when compared to control rats (39.49±2.99 µg/g) whereas the *A. blazei* treatment had a normalizing effect (47.24±9.09 µg/g). In conclusion, the pretreatment with the *A. blazei* aqueous extract had a tendency in normalizing hepatic glycogen and cholesterol levels.

Key words: *Agaricus blazei*, hepatic glycogen, hepatic lipids, paracetamol.
Supported by: Fundação Araucária-PRONEX, CNPq