

## LIPID AND GLICEMIC PROFILE OF RATS FED A SEMI-PURIFIED DIET SUPPLEMENTED WITH AGARICUS BRASILIENSIS MUSHROOM

Gilberto Simeone Henriques, Cristiane Viera Helm, Maria Lúcia Ferreira Simeone – Nutrition School – UFMG, Av. Alfredo Balena, 190 – Belo Horizonte – MG. EMBRAPA CNFP and CNPMS.

The search for more healthful alimentary habits has stimulated the study of new food sources. Amongst these, edible mushrooms are distinguished, like those of *Agaricus* family. The aim of the present work was to evaluate dietary influence of the semi-purified diets supplemented with mushroom *Agaricus brasiliensis* in the metabolic profile of lipids in rats and their impact on blood glucose. A trial with 28 male Wistar rats separated in four groups had been carried. The first one received AIN-93 diet (CAS). The second received AIN-93 diet plus cholesterol 1% (CAS + COL). The third and fourth had been fed with AIN-93 plus mushroom with (COG) or without (COG + COL) 1% cholesterol addition, respectively. At the end of 32<sup>o</sup> day, samples had been taken to analyze cholesterol, triacylglycerols, hepatic cholesterol and hepatic lipids. Histological analyses and glicemic load were proceeding. The study showed that rats fed with *Agaricus brasiliensis* was able to change the lipid profile, reducing total cholesterol (- 16%) and triacylglycerols (- 26,9%). We detected in this group an increasing in HDL cholesterol (+ 60,2%) and reducing levels of lipids and cholesterol in liver associated with their higher eliminating in the stools ( $r^2=0,92$ ). Liver architecture was preserved and there was a significant reduction in lipid deposition. The glycemic load in *Agaricus* fed rats, with or without chrolesterol was five times lower than in control casein rats ( $p<0,05$ ). All data together suggest the role of *Agaricus* mushrooms in modulate positively lipid and glicemic metabolic response in Wistar rats.