Dietary Efficacy of the Edible Mushroom *Agaricus bisporus* (J. Lge) Imbach in Modulating the Risk of Coronary Heart Disease in Rats

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The majority of edible mushroom would provide important supplements for human nutrition. Considering its importance, the present attempt is made to focus on the role and use of mushroom in hypercholesterolemia.

The primary aim of the present study is to find out whether hypercholesterolemia induced by a high-fat diet (HFD) produces any typical change in the electrocardiogram (ECG) of the rat and the secondary aim is to evaluate these changes so as to aid in detection of hypercholesterolemia in patients in clinical practice.

For the purpose of conducting the ECG, experimental albino rats were divided into eight groups consisting of six rats per group. Among them group III animals were induced with HFD, group IV with HFD and *Agaricus bisporus* (MR), group VI with HFD and vitamin E (VIT E); and group VIII with HFD plus MR plus vitamin E.

The ECG was analyzed for the following data: heart rate, P wave, R wave, T wave, PR, and QR and QT intervals.

Heart rate was frequently decreased after a HFD was followed by MR and VIT E, with a synergistic effect produced by both of the latter.

When MR, VIT E, and MR+VIT E effects are compared with each other it is observed that MR+VIT E is more potent in depressing the heart rate throughout the experiment. The R wave amplitude were found to be significant, an increase in the amplitude of T wave was observed, and a mild decrease in the activities of P–R interval was noticed. During the administration of MR on HFD the QT dispersion was increased.

Heart rate may be an important factor in the pathogenesis of coronary atherosclerosis. PR and QT intervals were prolonged and the amplitude of R wave is depressed. All these effects are multifactorial in origin.

From this, it could be inferred that ECG plays a key role in modulating the risk of coronary heart disease when treated with mushroom.