

Evaluation of homeopathic medicine in rats subjected to a hypercaloric diet and stress

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Introduction: The factors related to obesity are complex, involving biologic, environmental and neuropsychological mechanisms[1-3]. Among the factors which influence the gain of weight, we can consider the stressful factors. **Aims:** The aim of this experiment was to evaluate the influence of the commercial homeopathic product compound by *Fucus vesiculosus* 1cH, *Thyroidinum* 5cH and *Calcarea carbonica* 5cH (Besomed®) in the gain of weight in animals submitted to hypercaloric diet and stress. **Materials and Methods** 40 male freshly weaned Wistar rats, ingesting hypercaloric food, were divided into 4 groups, being two groups submitted to stress by standstill, being one group treated and the other one for control (vehicle) and two more groups without stress being one treated and the other one for control. All were given the drink water *ad libidum*, in blind, for 2 months. The general activity was evaluated by the Open Field method in 2 steps, one after stress and one after 1 month of treatment. The weekly gain of weight was measured during the whole period of treatment. The data were analyzed by the ANOVA method of two ways followed by the Bonferroni test[4], being $p \leq 0,05$. **Results:** The treatment with Besomed® was effective in reducing only the gain of weight in the animals submitted to stress ($p \leq 0,05$); the evaluation of general activity in the Open Field showed increase in the time of freezing of these same animals after receiving the stressful stimulus. **Discussion:** The medicine is used as auxiliary in obesity treatment, and has the same both endogenous highdiluted molecules as the medicine used by similarity, which is the case of *Calcarea carbonica*, which, among others is indicated for obesity and hyperlipidemia[5], being observed in this study that the homeopathic complex group gained less weight than the other groups. Stress is capable of disturbing the physiological and psychological homeostasia of an individual, and when the stress is caused by standstill, it may induce behavior of the anxious type. There are also studies relating anxiety and feeding behavior in chronically stressed[6] individuals, showing that consuming a hypercaloric diet induces an anxious behavior[7] in male rats. In this study was not observed any change in the motor activity of animals which passed stress, however the time of freezing of the animals which took Besomed® was the lowest ($p \leq 0,05$) after stress, if compared to the control groups, demonstrating the absence of an anxious behavior. **Conclusion:** The medicine evaluated was effective in reducing weight and in inducing an adaptive behavior only in the stressed animals, reducing the evaluated parameters to the same levels observed in the control group.

Keywords: Homeopathy, stress, obesity, rats.

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