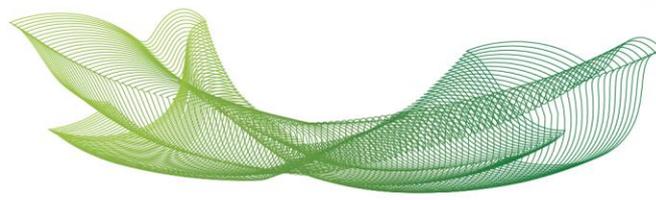


Tipo	Periódico
Título	Effects of glucosyl-hesperidin and physical training on body weight, plasma lipids, oxidative status and vascular reactivity of rats fed with high-fat diet
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Resumo	Objective: The aim of the study was to evaluate the effects of supplementation with glucosyl hesperidin (GH), with or without physical training, on body weight, fat depot, glucose and plasma lipids, oxidative status and vascular function of rats fed with high-fat diet (HFD). Methods: After weaning, male Wistar rats were fed with an HFD plus fructose for 12 weeks and started receiving oral antioxidant supplementation and/or physical training after the fourth week of diet for eight further weeks. Body weight, epididymal and retroperitoneal fat, plasma glucose and lipids, oxidative status and mesenteric artery reactivity were evaluated. Results: Rats fed with HFD presented higher body weight gain and fat accumulation compared to control rats, while GH supplementation did not influence these parameters. Physical training reduced the body weight gain and fat accumulation and modulated the oxidative status by increasing superoxide dismutase activity and total antioxidant capacity and reducing lipid peroxidation. GH alone decreased lipid peroxidation. However, when given to exercised rats, it impaired the response elicited by physical training. HFD caused endothelial dysfunction, and neither GH nor physical exercise prevented it. Potency of sodium nitroprusside was increased in



	<p>exercised animals but not in GH-supplemented rats. Conclusion: Physical exercise partially decreased the body fat accumulation, decreased plasma levels of glucose and lipids and improved general oxidative status and endothelium-independent relaxation in mesenteric arteries of rats fed with HFD. GH exhibited benefits only in the oxidative status. However, GH given in association with physical exercise did not cause further changes in addition to those promoted by physical exercise. On the contrary, in exercised animals, GH prevented those changes elicited by physical training in plasma glucose and lipids, oxidative status and endothelium-independent relaxation</p>
Fomento	