



Tipo	Periódico
Título	Modulatory Effect of Polyphenolic Compounds from the Mangrove Tree <i>Rhizophora mangle</i> L. on Non-Alcoholic Fatty Liver Disease and Insulin Resistance in High-Fat Diet Obese Mice
Autores	Leonardo Mendes De Souza Mesquita, Cíntia Rabelo e Paiva Caria, Paola Souza Santos, Caio Cesar Ruy, Natalia Da Silva Lima, Débora Kono Taketa Moreira, Claudia Quintino Da Rocha, Daniella Carisa Murador, Veridiana Vera De Rosso, Alessandra Gambero, Wagner Vilegas
Autor (es) USF	Cíntia Rabelo e Paiva Caria, Paola Souza Santos, Caio Cesar Ruy, Alessandra Gambero
Autores Internacionais	
Programa/Curso (s)	Programa de Pós-Graduação Stricto Sensu em Ciências da Saúde
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Resumo	No scientific report proves the action of the phytochemicals from the mangrove tree <i>Rhizophora mangle</i> in the treatment of diabetes. The aim of this work is to evaluate the effects of the acetonic extract of <i>R. mangle</i> barks (AERM) on type 2 diabetes. The main chemical constituents of the extract were analyzed by high-performance liquid chromatography (HPLC) and flow injection analysis electrospray-iontrap mass spectrometry (FIA-ESI-IT-MS/MS). High-fat diet (HFD)-fed mice were used as model of type 2 diabetes associated with obesity. After 4 weeks of AERM 5 or 50 mg/kg/day orally, glucose homeostasis was evaluated by insulin tolerance test (iTT). Hepatic steatosis, triglycerides and gene expression were also evaluated. AERM consists of catechin, quercetin and chlorogenic acids derivatives. These metabolites have nutritional importance, obese mice treated with AERM (50 mg/kg) presented improvements in insulin resistance resulting in hepatic steatosis reductions associated with a strong inhibition of hepatic mRNA levels of CD36. The beneficial effects of AERM in an obesity model could be associated with its inhibitory α -amylase activity detected in vitro. <i>Rhizophora mangle</i> partially reverses insulin resistance and hepatic steatosis associated with obesity, supporting previous claims in traditional knowledge.
Fomento	