Furtado R A et al., J Clin Toxicol 2014, 4:4
http://dx.doi.org/10.4172/2161-0495.S1.013

OMICS Group Conferences
Accelerating Scientific Discovery

3rd International Summit on
Toxicology & Applied Pharmacology
October 20-22, 2014 DoubleTree by Hilton Hotel Chicago-North Shore, USA

Antitumor activity of glycoalkaloid solamargine against murine melanoma in C57BL/6 mice

Furtado R A, Ferreira N H, Oliveira P F, Acésio N O, Bastos J K, Souza L D R and Tavares D C
University of Franca, Brazil

Natural products are some of the important sources of new anticancer drugs. The solamargine glycoalkaloid is the major compound found in the fruit of *Solanum lycocarpum*, common species in the Brazilian Cerrado. This glycoalkaloid has shown promising antitumor activity in cell lines. Therefore, the antitumor activity and toxicity of solamargine in the syngeneic murine B16/F10 tumor model was evaluated. C57BL/6 mice were subcutaneously injected with solamargine at dose of 10 mg/kg every five days. The tumor inhibition ratio was determined after five days of treatment. To evaluate the toxicological aspects related to the solamargine treatment, analysis of DNA damage in liver cells by comet assay and serum levels of creatinine and urea were performed. Solamargine treatment for five days resulted in reduction of the tumor growth and weight. The results showed that the animals implanted with tumor showed higher frequencies of DNA damage when compared to those without tumor implantation. The group implanted with tumor and treated with solamargine showed DNA damage frequencies did not differ significantly from the negative control. No significant differences were observed between the levels of creatinine and urea in treated animals solamargine in related to those without tumor implantation. Thus, this work contributes to the understanding of the antitumor activity of solamargine, providing a more effective and safe use in future clinical applications.

Biography

Furtado R A obtained his PhD from the University of São Paulo in 2013, at 26 years of age. Currently holds a postdoc in genetic toxicology at the University of Franca, São Paulo, Brazil. His areas of expertise are genetic toxicology, cancer chemoprevention and phytochemical.

ricardoafurtado@gmail.com