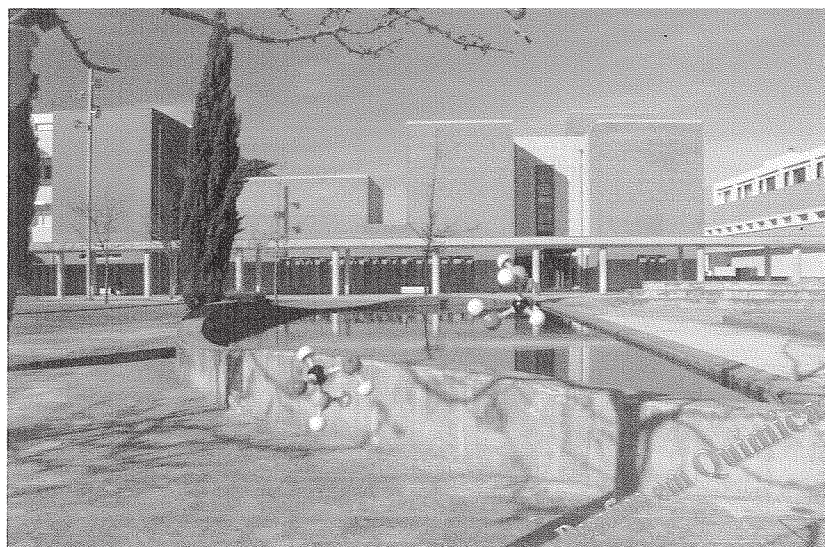


XXIII Encontro Nacional da SPQ



Aveiro 12 a 14 de Junho de 2013



Associação Portuguesa de Químicos
e Farmacêuticos, 1910



SOCIEDADE
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Salicornia ramosissima: secondary metabolites and testicular protection induced by ethanol extract

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Several *Salicornia* species are used in folk medicine for several disorders, such as constipation, obesity and diabetes.^[1] Furthermore extracts of the aerial parts of *Salicornia* spp. exhibit promising biological activities and their phytochemical studies revealed the presence of flavonoids, chromones and alkaloids, also known for their biological activities.^[1] Given these bookmarks, we initiate a phytochemical and toxicological study of *S. ramosissima* J. Woods (Chenopodiaceae), an annual salt tolerant plant, broadly distributed in the salt marshes and salt pans of Ria de Aveiro.^[2] Previous studies conducted in our laboratories have shown the presence of scopoletin and a new aromatic compound with *t*-butyl substituents, from the dichloromethane extract of *S. ramosissima* aerial parts,^[3] while the *S. ramosissima* ethanolic extract (SREE) showed hepatotoxicity and renal impairment of mice.^[4]

In this communication we will present and discuss our recent results, the structure and spectroscopic characterization of isolated compounds (omega-3 ethylated PUFA, sterol and a rare wax) as well as the effect of SREE on mice testicular tissue under carbon tetrachloride (CCl₄) exposure. Moreover, it was clearly demonstrated that SREE had a protective effect, preventing tubular epithelium degeneration and germ cell exfoliation into the lumen, therefore the reproductive function was preserved.

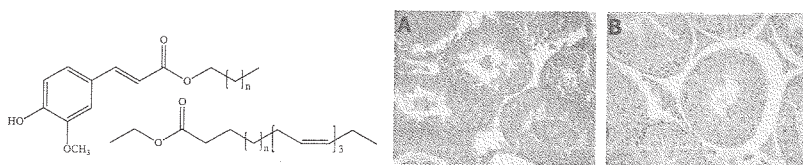


Figure. Examples of the isolated compounds and histological sections of mouse testis. A) CCl₄-treated group, B) SREE + CCl₄-treated group.

Acknowledgments: Thanks are due to the University of Aveiro, Portuguese Foundation for Science and Technology (FCT), European Union, QREN, FEDER and COMPETE for funding the QOPNA research unit (project PEst-C/QUI/UI0062/2011), CICECO (project PEst-C/CTM/LA0011/2011), CESAM, the Portuguese National NMR Network (RNRMN) and FCT Project PTDC/MAR/100482/2008.

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