

### NEUTRALIZING PROPERTIES OF PLANT EXTRACTS AGAINST JELLYFISH VENOM

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Cnidarian venoms are thought to have therapeutic potential so that the research about these compounds is a field of concern for applicative purposes. Nevertheless, at present the fine composition, the activity and the characterization of venom constituents are greatly unexplored. Cnidarian venoms are complex mixtures of thousands of components, mainly peptides, having specific bond targets. This study aims to evaluate the neutralizing properties of natural products from plants against cnidarian envenomation and induced pain, to develop protective products having topical utilization. The isolation of heterotrichous microbasic eurytele nematocysts from tentacles of *Pelagia noctiluca* collected in Eastern Tyrrhenian Sicily waters around Messina and venom extraction have been carried out according to published methods. Commercial extracts from *Ananas comosus* and *Carica papaya* were formerly evaluated on cultured mouse lung fibroblasts L979 to measure their cytotoxicity by MTT assay and here used to prove protection against cytotoxicity of eurytele nematocysts venom. Eurytele nematocysts induced cytotoxicity with an IC<sub>50</sub> of about  $40 \times 10^4$  N/mL. The extracts from *Ananas comosus* and *Carica papaya* resulted non-toxic, both with an IC<sub>50</sub> > 2000 g/mL. *Ananas comosus* extract caused reduction of venom effects at 10 and 100 g/mL, doubling the amount of surviving cells at the endpoint, while *Carica papaya* extract was more effective at 100 g/mL than at 10 g/mL. These preliminary results show that the studied plant extracts can have an interest in fighting the effects of jellyfish stings and could be good candidates for the preparation of topical products. Further studies in progress in our laboratory will hopefully confirm these first heartening data.