Studies on the Cytotoxicity of Cucurbitacins Isolated from *Cayaponia racemosa* (Cucurbitaceae)

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The cytotoxic potential of three cucurbitacins, 2,3,16,20(*R*),25-pentahydroxy-11,22-dioxo-cucurbita-5-en (cucurbitacin P, **1**), 2,3,16,20(*R*),25-pentahydroxy-22-oxocucurbita-5-en (**2**) and 2,3,16,20(*R*),25-pentahydroxy-22-oxocucurbita-5,23(*E*)-diene (deacetylpicracin, **3**), obtained from *Cayaponia racemosa* was evaluated as their ability to induce brine shrimp lethality, to inhibit the development of sea urchin eggs and tumor cell proliferation, and to lysis mouse erythrocytes. Compounds **1** and **2** were highly toxic with LC_{50} of (29.6 ± 9.1) (56.8) and (38.8 ± 3.0) (76.6) μg/mL (μM), respectively, while compound **3** was not effective at the tested concentrations. All tested compounds possessed an inhibitory effect on the proliferation of tumor cell lines, compound **1** being the most active, followed by **2** and **3**. Nevertheless, no hemolytic activity or inhibition of the development of sea urchin eggs was observed for these compounds.

Key words: Cayaponia racemosa, Cucurbitacins, Cytotoxic Activity