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Activity of derived extracts from *Annona coriacea Mart.* on head and neck tumor lines

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Head and neck squamous cell carcinoma (HNSCC) makes up about 90% of head and neck neoplasms. The treatment is aggressive, the 5-year survival rate is around 50-60% and the local recurrence is 20-30%. Studies report that the use of new antitumor drugs of natural origin, besides efficient, offers a wide field for new research. So the objective of this work is to identify the antineoplastic potential of seven extracts of the species *Annona coriacea Mart*. on head and neck tumor lines. In the cell viability assay, only the compound C4 did not reach representative IC50 values on the tested lines (HN13 and FaDu). Of the seven compounds, four (C1, C2, C3, and C5) exhibited better results and were selected to follow in further assays. In the cell migration assay, it was seen that the C2, C3, and C5 compounds inhibited the migration in HN13 and C3 and C5 in FaDu, above all in 48 hours after treatment. Changes in cell morphology were observed in the lines, which after treated with the compounds in the time of 48 hours showed cytoplasmic projections and vacuoles (HN13) and higher nuclear condensation (FaDu) compared to the control (Images 3 and 4). The results of this study contribute to the development of new antineoplastics that may help the treatment of HNSCC improving the prognosis and leading to cure.

Biography

Aline T M Coelho is a Biochemistry student at Federal University of São João del-Rei, Campus Centro-Oeste Dona Lindu (UFSJ-CCO), Technician in Pharmacy by the institution Conceição Ferreira Nunes, Divinópolis/Mg and student of scientific initiation in the Laboratory of Experimental Pathology (Lapatex), UFSJ-CCO.

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