

Extended Abstract

Evaluation of *Echinophora Tenuifolia* L. Extracts on HSC-2 Cell Line [†]

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Oral squamous cell carcinoma survival is still poor, although the improvement in treatments both in surgical and chemotherapy [1]. Conventional treatments are also associated with acute and chronic toxicity, which leads to a decrease of quality life [2]. Natural compounds are a promising alternative, since they can affect the different steps of tumor cell development, with poor toxic events. *E. Tenuifolia* L. showed promising anticancer activities in several cancer models, due to its antioxidant activity [3,4]. In order to verify its anticancer activity in a cellular model of squamous cell carcinoma, HSC-2, we performed a MTT cell proliferation assay, by adding this compound at time 0 (t₀). HSC-2 were cultured in cell culture flask at 37 °C with 5% CO₂ in RPMI medium supplemented with 10% fetal bovine serum (FBS), 1% penicillin-streptomycin and 1% L-Glutamine. We used the inflorescences total extract (20 mg/mL in EtOH 70%) and we evaluated the production of formazan in order to determine the cell viability, at 24 h, 48 h and 72 h. When comparing these results, with results coming from cells in addition with ethanol only, we observed a decrease in cell viability of 40%. Future studies should deeply investigate the role of *Echinophora Tenuifolia* L. as possible adjuvant in cancer therapy, in order to understand its role in pathways and molecular targets.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Suh, Y.; Amelio, I. Clinical update on cancer: molecular oncology of head and neck cancer. *Cell Death Dis.* **2014**, *5*, e1018.
2. Valdez, J.A.; Brennan, M.T. Impact of Oral Cancer on Quality of Life. *Dent. Clin. N. Am.* **2018**, *62*, 143–154.
3. Marrelli, M.; Pisani, F.; Amodeo, V.; Duez, P.; Conforti, F. *Echinophora tenuifolia* L. branches phytochemical profile and antiproliferative activity on human cancer cell lines. *Nat. Prod. Res.* **2019**, 1–4, doi:10.1080/14786419.2018.1548457
4. Marrelli, M.; Statti, G.A.; Menichini, F.; Conforti, F. *Echinophora tenuifolia* L. inflorescences: phytochemistry and in vitro antioxidant and anti-inflammatory properties in LPS-stimulated RAW 264.7 macrophages. *Plant Biosyst.* **2017**, *151*, 1073–1081.



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