Antiproliferative, protective and antioxidant effects of artichoke, dandelion, turmeric and rosemary extracts and their formulation.

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Abstract
Artichoke, dandelion, turmeric extracts and rosemary essential oil are commonly used as ingredients in many herbal preparations to treat hepatic and gallbladder disorders. In the present work we compare the activity of each single extract with a commercial mixture for antiproliferative, antiradical and protective effects against induced oxidant stress effect. In ABTS and DPPH tests, turmeric extract is the most active, followed by artichoke and dandelion. All samples exhibited antiproliferative activity in a dose-dependent manner against HepG2 cells. In the same cell lines, the protective effect of pre-treatment with the extracts were detected by evaluating the prostaglandin E2 release, a marker of oxidative stress induced by hydrogen peroxide. The treatments with the extracts were efficient in reducing the release of PGE2 induced by oxidative stimulus. The positive results of the cell viability test, together with the protective and antiradical activity confirm the rationale for the use of these ingredients in commercial formulations as a health aid tool in modern phytotherapy.

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