

OBTENCIÓN Y CARACTERIZACIÓN DE EXTRACTOS PROCEDENTES DE SUBPRODUCTOS AGROALIMENTARIOS CON POTENCIAL NEUROPROTECTOR.

The by-products of *Cynara Asteraceae* (artichoke) represent one of the most abundant plant residues from the agro-industrial production of vegetables and greens and constitute a promising source of compounds with beneficial properties for health, such as phenolic compounds. In this work, the conditions for extracting bioactive components from by-products of artichoke processing by means of pressurized liquids (PLE) were optimized, using different solvents and temperatures to increase the yield and selectivity of the extraction of said components. The neuroprotective potential of PLE extracts was tested by a set of in vitro assays, including antioxidant activity (ABTS), activity against reactive oxygen/nitrogen species (ROS/RNS), as well as enzymatic tests - acetylcholinesterase (AChE), and lipoxygenase (LOX)-. The phenolic profile of the most promising extracts, obtained by high-performance liquid chromatography coupled with high-resolution mass spectrometry (UHPLC-qTOF-MS), showed a high content of compounds derived from caffeic acid, flavonoids, and fatty acids.

Finally, the results show that the extracts obtained at a higher temperature (180 °C) and a lower percentage of apolar solvent (CPME) have a higher antioxidant power (ABTS IC₅₀ = 6,1 μg mL⁻¹; ROS IC₅₀ = 0,2 μg mL⁻¹), very good anti-inflammatory properties (LOX IC₅₀ = 28,6-μg mL⁻¹), and much more promising anticholinesterase activity (AChE IC₅₀ = 230,8 μg mL⁻¹) than that obtained with a conventional extraction (AChE IC₅₀ = 789,1 μg mL⁻¹).