



## FORMULATION AND ANTIOXIDANT ACTIVITY OF A CREAM CONTAINING VITIS VINIFERA.L LEAF EXTRACT

A. Chenafa<sup>1,2\*</sup>, M.A. Selka<sup>1,2</sup>, A. Boulerial<sup>1</sup>, B. Talha<sup>1</sup>, H. Toumi<sup>2</sup>

<sup>1</sup> Department of Pharmacy, Djillali Liabes University of Sidi-Bel-Abbes, Algeria

<sup>2</sup> Laboratory of Research in Pharmaceutical Development, Oran, Algeria

### ABSTRACT

Red vine (*Vitis vinifera* L.) is a plant easily procurable in Algeria, rich in various polyphenols (flavonoid, anthocyanin...) at various parts, yet it is still poorly exploited. These polyphenols have numerous properties including antioxidant property.

As a part of the valuation of the Algerian flora, the aim of this study was to formulate a cream containing an extract of red vine leaves and evaluate its antioxidant potential.

The extract was obtained by hydro-alcoholic extraction of *Vitis vinifera*.L leaves. Two creams "O/W" were prepared (base-formulation). The stability of these creams was studied at two different temperatures 25 ° C and 40 ° C for 60 days.

Creams were physicochemically stable. The study of antioxidant activity by the method of free radical scavenging using DPPH (2,2- diphenyl- 1 - picrylhydrazyl ) and the comparison with the two antioxidants of reference ( ascorbic acid and Butylhydroxytoluene ) revealed a moderate antioxidant potential for the extracts as well as the creams but with a minor potential.

In vivo studies are recommended to confirm the antioxidant action of such creams as well as the study of its long- term stability.

**Keywords**— antioxidant potential, emulsion, stability, *Vitis vinifera* L.

*Themes: Sciences*