



## EVALUATION OF THE ANTIOXIDANT ACTIVITY OF FRACTIONS OF *Capsella bursa pastoris* L. Medick; "Chichicara"

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### INTRODUCCIÓN

The use of flora as palliatives of various organic disturbances is as old as humanity itself. The plant species *Capsella bursa pastoris* L. Medick; "Chichicara", used by the residents of Puquio province, Ayacucho region in Peru, is used for various ailments such as: digestive disorders, dysmenorrhea, hemorrhages, astringent, diuretic, etc. The objective of this work was to perform a phytochemical screening and the determination of the antioxidant activity of extracts of different polarities, which allows to justify the attributed properties [1].

### MATERIAL Y MÉTODOS

The plants was completely collected during the month of march, in the town of Ccayao.

The species was identified in the Natural History Museum, from the whole plant an ethanolic crude extract was obtained by continuous extraction (reflux), a phytochemical screening was carried out, which allows the identification of secondary metabolites from the application of coloration reactions. From the crude extract a fractionation was carried out with solvents of different polarities: ethyl acetate, dichloromethane, petroleum ether [2]. The crude extract was characterized by the determination of: total solids, ash, pH, ash and minerals; To the extracts of different polarities, antioxidant activity of the 2,2-Diphenyl-1-(2,4,6-trinitrophenyl)hydrazyl (DPPH), antioxidant power of iron reduction (FRAP) and radical 2,2'-azino-bis (3-ethylbenzotiazolin)-6-sulfónico, acid ABTS methods was determined [3].

### RESULTADOS

The presence of secondary metabolite groups such as: tannins, flavonoids, alkaloids and triterpenoids and steroids was determined in the crude extract.

The crude extract presented the following characteristics: total solids 96,56 g/100g; soluble solids 10,2 degrees brix; pH 2,75; ashes 1,85 g /100g; the content of Ca, Mg, Fe, Zn, was 528 , 254, 40, 15, ppm respectively; and content K of 1.87g/100g.

Regarding the determination of the antioxidant activity of the different extracts, an IC<sub>50</sub> equivalent to 1,37; 10,7 and 8,44 mg was obtained by the DPPH method for the extracts of ethyl acetate, dichloromethane and petroleum ether; by the FRAP method a teac (1mM trolox) equal to 5,57; 2,35 and 1,80 mg was obtained; likewise by the ABTS method a teac of 1,07; 7,70 and 9,98 mg for the extracts ethyl acetate, dichloromethane and petroleum ether respectively.

### CONCLUSIONES

The extraction method had a performance of 10% of the crude extract, which has a considerable concentration of magnesium and zinc compared to other species, the ethyl acetate extract was more effective in the antioxidant activity by the DPPH and ABTS methods based on the HAT and SET mechanism.

### REFERENCIAS

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- [3] Víctor D., Camilo C., Rojas T., Rojas R. Compuestos 2013 Rev. Soc. Quim Perú. 79(1):13-19