Antioxidant activity of *Baccharis trimera* (Less.) DC extracts

Nascimento, D. S. M.¹; Câmara, R. B. G.; Oliveira, R. M.; Gomes, D. L.; Costa, M. S. S. P.; Lima, M. C. J. S.; Pedrosa, M. F. F.; Rocha, H. A. O.¹

¹ Laboratório de Biotecnologia de Polímeros Naturais – BIOPOL, Departamento de Bioquímica, Universidade Federal do Rio Grande do Norte-UFRN, Campus Universitário Lagoa Nova CEP 59078-970, Natal/RN, Brazil

² Departamento de Farmácia, Universidade Federal do Rio Grande do Norte, Natal, Brazil

**Introduction and objectives:** There has been a dramatic increase of obesity resulting from an excess of adipose tissue. Self-medication with "natural products" slimming has increased lately, because the population believes that will not bring health damage. The *Baccharis trimera* (Less.) DC (gorse) is a medicinal plant native to Brazil, it is known as carqueja. Infusions of this plant are used as a diuretic, anti-inflammatory, against diabetes and other. To support its medicinal potential, here *Baccharis trimera* leaf extract was characterized chemically and phytochemically and evaluated as antioxidant agent using *in vitro* assays. **Materials and Methods:** The leaves were collected in Brasilia, DF, dehydrated, crushed and submitted to maceration and/or decoction, obtained the aqeous (AE), decoction (DE) and methanol extracts (ME). The amount of protein, sugar and phenolic compounds was determinate using colorimetric methods. The characterization phytochemical, to search phytochemicals, was made up using Thin Layer Cromatography (CCD). The antioxidant activity were measured using superoxide and hydroxyl radical scavenging assay, reducing power assay, copper and metal ions chelation assay and total antioxidant capacity (TAC). **Results and conclusions:** The amount of sugar, protein and phenolic compounds in the extracts were 18.4; 5.2 and 25.8% (for AE); 23.7%; 5.8 and 29.4% (for DE); and 14.1; 8.8 and 20.7% (for ME). All the extracts showed scavenging and reducing activity in a dose-dependent manner. On the other hand, only ME ferric and copper chelating activity. In TAC, the three extracts showed average of 35% antioxidant activity equivalent to acid ascorbic. CDD showed the presence of flavonoids in all extracts. The data indicate that *Baccharis trimera* leaf has antioxidant activity due the presence of flavonoids.

Keywords: Flavonoids; metal chelating activity; carqueja.
Support: CNPq, CAPES, MCTI