

MUCOLYTIC ACTION FROM *CLADONIA VERTICILLARIS* EXTRACT AND OF FUMARPROTOCETRARIC ACID IN THE MICE.

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Lichens are organisms in symbiotic relationship with fungi and algae. Throughout the ages, lichens have been used for various purposes in folk medicine for treatment of affections such as throat irritation and cough, tuberculosis and asthma. This study was aimed at evaluating the expectorant activity of an extract from *Cladonia verticillaris* and of fumarprotocetraric acid (FUM) in the mice. Sixty (60) female Swiss mice, weighting 25-50g were separated into five groups. Into each group were used four controls animals. Phenol red was injected intraperitoneally, five minutes after, a drug was administered orally: Ambroxol (3mg) and the extract and FUM were used in two different concentration (2.6mg and 3.2mg). The mice were sacrificed thirty minutes after the dye injection; their tracheas were dissected and cannulated with a blunt. Through this blunt six lung lavages were repeated with 0.5 mL saline. The washing fluids collected were then centrifuged at 1600xg for 10 minutes. A portion was taken and brought to 3 mL with NaOH and the read at 546nm. The results showed an increase of 46.15% ($P < 0.05$) in phenol red secretion with the use of Ambroxol and an increase in phenol red secretion with acetonic extract (19.23%) and FUM (3.84%) in the group treated with 3.2mg of drug, but it wasn't statistically significant. These results suggest that just Ambroxol enhanced the mucolytic action.

Key words: *Cladonia verticillaris*, mice.