In vitro evaluation of antioxidant activity of leaves and stems from european Mistletoe (viscum album)

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The aim of this study was to determine in vitro, the antioxidant activity of different aqueous extracts of V. album, depending on the host trees using ferric reducing power (FRAP) assay and Folin Ciocalteu assay. When we compared the antioxidant activity of leaves and steams, it can be observed that the highest antioxidant activity was recorded in the case of steams. The values obtained by FRAP assay, varied from 0.23 ± 0.03 mg/l vitamin C equivalent / g of fresh leaves for the VAJ extract to 0.52 ± 0.05 mg/l vitamin C equivalent / g of fresh leaves for the VAM extracts. Similarly results were obtained in the case of stems extracts (0.54 ± 0.20 mg/l vitamin C equivalent / g of stem for the VAJ extract to 0.90 .± 0.40 mg/l vitamin C equivalent / g of stem for the VAS extracts). The influence of the host tree may play a very significant part in the assessment of the mistletoe as a plant raw material for phytopharmaceutical formulas. We also reported for the first time the significant antioxidant potential of different plant parts of mistletoe (stems versus leaves), stems being more concentrated in antioxidants, being more
protected from sun irradiation than leaves.