Antioxidant Activity from Extracts of Native Bees Pollen and its Effect on Bacteria from Uricultures of Patients Attended at University Hospital "Alberto Antunes" (AL)

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The bee pollen is known mainly for being rich in essential amino acids, proteins and fatty acids. It is a food without against indications and acts therapeutically on various biological systems. Thus, ethanol extracts of pollen (EEPs) of some native bees of the State of Alagoas (*Mellipona quadrifaciata, Mellipona subnitda, Plebeia droriana*, *Mellipona scutellaris*) were obtained for assessment of its probable antioxidant and/or antimicrobial activities. Samples of pollen were collected from beehives located in the semiarid, backlands and coast from Alagoas, in periods of rainfall or drought After weighing and soaking in 70% hydro-ethanolic solution (50 mg pólen.mL^{-1}), the material was shaken (150 rpm, 70 °C, 30 min), centrifuged and its supernatant harvested. To this supernatant was performed the analysis for determination of total phenols (Foulin-Ciocalteau method, using standard curve of gallic acid), the antioxidant activity (method of sequestering the radical DPPH: 2,2-diphenyl-1-picryl -hidrazil, with standard curves made with quercetin, gallic acid and ascorbic acid) and antimicrobial activity in Mueller-Hinton agar. For the latter, EEPs were deposited in holes ($\theta \cong 8$ mm) where the agar had been removed and the plates inoculated with an aqueous suspension of each bacterium (DO 560 nm, 10^7 células.mL^{-1}) isolated from patients attended at University Hospital "Alberto Antunes" with urinary infection. It was observed that the EEPs studied here had high amount of phenolic compounds (11,6-19,1 mg.g^{-1} pollen) and antioxidant activity (50-60%). Moreover, considering the studied concentration and following the criteria of the *Clinical and Laboratory Standards Institute* (CLSI), the EEPs of native bees showed no significant action against bacteria from uricultures.

Keywords: native bees, extracts of pollen, antioxidant activity, phenolic compounds, antimicrobial activity

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