P9 LICHENS AS POSSIBLE ANTIMICROBIAL AGENTS

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Antibacterial and antifungal activity of the acetone, methanol and aqueous extracts of the lichen *Lecanora atra*, *Parmelia reticulata*, *Parmelia omphalodes* and salazinic acid from *Parmelia reticulata* lichen has been screened *in vitro* against to six species of bacteria and 10 species of fungi. The antimicrobal activity was estimated by the disc-difusion method and determination of the minimal inhibitory concentration by using microdilution plate method. The aqueous extracts of all of the tested lichens were inactive, whereas the acetone and methanol extracts showed antimicrobial activity against the majority of the tested organisms. Among the extracts, the strongest activity was found in the acetone extract of the lichen *Parmelia omphalodes* where the least measured MIC value was 0.78 mg/ml. Salazinic acid also shows strong activity against bacteria and fungi. The lowest measured MIC value was 0.39 mg/mL related to the *Klebsiella pneumonie* species. The bacteria were more sensitive related to the tested funghi. Generally, *Bacillus subtilis* and *Bacillus mycoides* were the most sensitive of the tested bacterial species, while *Botrytis cinerea* and *Candida albicans* were the most sensitive fungal species. There was no antimicrobial activity against *Escherichia coli* species. The results obtained show that the tested lichens and their compound demostrated a strong antimicrobal effect against the tested microorganisms. That suggest a possibility of their use in a treating of various deseases caused by these and similar microorganisms.