The Antimicrobial Activity of Extracts of the Lichen *Cetraria aculeata* and Its Protolichesterinic Acid Constituent

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In this study, the antimicrobial activity of the acetone, diethyl ether and ethanol extracts of the lichen *Cetraria aculeata* has been investigated. The extracts were tested against twelve bacteria and eight fungi and found active against *Escherichia coli*, *Staphylococcus aureus*, *Aeromonas hydrophila*, *Proteus vulgaris*, *Streptococcus faecalis*, *Bacillus cereus*, *Bacillus subtilis*, *Pseudomonas aeruginosa*, *Listeria monocytogenes*. No antimicrobial activity against the fungi was detected. It was determined that only one substance in the extracts has antimicrobial activity and it was characterized as protolichesterinic acid. The MICs of the extracts and protolichesterinic acid were also determined.

Key words: Cetraria aculeata, Protolichesterinic Acid, Antibacterial Activity