Identification and Quantitation of Usnic Acid from the Lichen *Usnea* Species of Anatolia and Antimicrobial Activity

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Six species of lichens, such as *Usnea florida, Usnea barbata, Usnea longissima, Usnea rigida, Usnea hirta* and *Usnea subflorida,* were collected from different areas of Anatolia (district of Antalya, Karabük, Çankırı, Giresun and Trabzon) in Turkey. Their usnic acid amounts in acetone extracts were determined by HPLC. In addition, antimicrobial activities of these extracts were determined against *Escherichia coli* (ATCC 35218), *Enterococcus faecalis* (RSKK 508), *Proteus mirabilis* (Pasteur Ens. 235), *Staphylococcus aureus*, *Bacillus subtilis* and *Bacillus megaterium.* It was shown that with increasing amount of usnic acid, the antimicrobial activity increased. Usnic acid contents of *Usnea* species varied between 0.22–6.49% of dry weight.

Key words: Usnea, HPLC, Antimicrobial Activity