CHEMICAL COMPOSITION AND ANTIMICROBIAL PROFILING OF MYRICA SAPIDA WALL.: AN IMPORTANT WILD FRUIT SPECIES OF UTTARAKHAND HIMALAYA

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The chemical composition and antimicrobial activity of the extracts of the leaves and bark of Myrica sapida (MS) were determined. The profiling of the chemical composition of the methanolic extracts of leaves and bark was performed by GC-MS analysis. The antimicrobial activity of both the extracts was detected by using the disk diffusion method against seven microbial cultures/ strains. The major compounds identified in the leaves are lupeol (23.74%), squalene (18.02%), methyl linolate (14.85%), pentadecanoic acid (5.41%) and methyl commate D (5.17%), however, in bark extract; linoelaidic acid (50.75%), methyl commate D (10.60%), taraxerone (5.78%), pentadecanoic acid (5.02%), and bis(2-ethylhexyl) phthalate (5.00%). The extracts of both leaves and bark showed significant antimicrobial activity against Escherichia coli, Klebsiella pneumonia, Pseudomonas aeruginosa, Staphylococcus aureus, Candida albicans, Candida tropicalis and Candida glabrata.

Keywords: Myrica sapida, chemical composition, GC-MS analysis, antimicrobial activity.