Antimicrobial activity of bioactive compounds isolated from Swietenia mahagoni (L) Jacq. against Staphylococcus aureus and Pseudomonas aeruginosa

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Abstract	Widespread bacterial resistance has led to more difficult to treat infectious diseases with availableantibiotics. Therefore, new antibiotics are needed face of the growing antibiotic resistance. Swieteniamahagoni (L.) Jacq. is one of potential medicinal plants as a source new antibiotics. Five compoundshave been isolated from an ethanolic extract of S. mahagoni (L.) Jacq., however its antimicrobialactivity has not been investigated, yet. This study was conducted to evaluate the antimicrobialactivity of these compounds. Minimal Inhibitory Concentration (MIC) and Minimal BactericidalConcentration (MBC) were determined against Staphylococcus aureus and Pseudomonas aeruginosastrains. Among five compounds tested, compound 3 (3,4,5,6,7-pentaethyl-1-methoxy-1H-indazole)and compound 4 (5-ethyl-6-methoxymethyl-2-methyl-1,2-dihydropyridine) were found to be activeagainst the bactrial strains tested with the MICs and MBCs values ranged from 50 to 100 ÃŽÂ¼g/mL. Inconclusion, among five compounds isolated from S. mahagoni (L.) Jacq., compound 3 and 4showed moderate antimicrobial activity against S. aureus and P. aeruginosa strains.
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