ABSTRACT

An efficient and simple synthesis of a new series of indole derivatives have been accomplished from the commercially available indole-3-acetic acid **1**. The indole-3-acetic acid **1** was converted into methyl ester **2**, which was further transformed into hydrazide **3.** Subsequent treatment of **3** with various aldehydes or ketones generated the targeted new indole derivatives in good to excellent yields (50–95%). The synthesized compounds were structurally characterized by I. R, ^{1}HNMR and ^{13}CNMR. The urease, acetylcholinesterase, butyrylcholinesterase, and lipoxygenase inhibitory activities of the compounds were evaluated. Antioxidant behavior of compounds was analyzed by three different protocols (ABTS, FRAP, Metal chelating). Anti-bacterial activities of all the indole derivatives have been analyzed (against *Staphylococcus aureus, Escherichia coli, Bacillus subtilis* and *Streptococcus sp)* and it has been observed that most of the compounds exhibited good anti-bacterial activities.