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Synthesis, Characterization and Pharmacological study of Metacetamol derivatives

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ABSTRACT

A series of new metacetamol derivatives were synthesized from 3-Aminophenol which was prepared from 3-nitrophenol in the presence of palladium carbon in hydrogen atmosphere. The compound was treated with acetic anhydride, and was further alkylated with different substituted Benzyl bromides to yield alkylated metacetamol derivatives. The synthesized compounds were characterized by LC-MS, ^{1}H NMR, and ^{13}C NMR and IR spectral studies. The compounds were screened for antibacterial and anthelmintic activity. Three of the compounds showed moderate antibacterial and anthelmintic activity compared to standard ciprofloxacin drug.

Keywords: Metacetamol, m-nitrophenol, acetic anhydride, substituted Benzyl bromides, antibacterial activity, anthelmintic activity