ABSTRACT

Four analogs of 2-benzamido-N-benzoylelbenzamide; 2-(2-chlorobenzamido)-N-(2-chlorobenzoylelbenzamide; 2-(3-chlorobenzamido)-N-(3-chlorobenzoylelbenzamide; and 2-(4-chlorobenzamido)-N-(4-chlorobenzoylelbenzamide have been designed, synthesized, and structurally were confirmed by UV-Vis Spectrophotometry, $^1$H-NMR, $^{13}$C-NMR, FT-IR and MS Spectroscopic methods. All compounds were evaluated for their analgesic activity in vivo by acetic acid induced writhing test on mice (Mus musculus). The test showed that 2-benzamido-N-benzoylelbenzamide; 2-(3-chlorobenzamido)-N-(3-chlorobenzoylelbenzamide; and 2-(4-chlorobenzamido)-N-(4-chlorobenzoylelbenzamide possessed higher analgesic activity compared mefenamic acid. 2-(2-chlorobenzamido)-N-(2-chlorobenzoylelbenzamide dose 50 mg/kg body weight has higher analgesic activity compared to mefenamic acid dose 50 mg/kg body weight, QSAR studies showed the best correlation belongs to relationship between lipophilic parameter (ClogP) and analgesic study.

Keywords : anthranilic acid, anthranilamide, analogs of 2-benzamido-N-benzoylelbenzamide, analgesic, QSAR