

ABSTRACT

Indane-1,3-dione derivatives have shown diverse chemical reactivity and broad spectrum of biological activity. They are reported to possess important therapeutic properties such as antibacterial, antifungal, antiviral, anti-inflammatory, analgesic, anticancer and anti-coagulant activities.

2-Acetylidane-1,3-dione was synthesized from phthalic anhydride and acetyl acetone, which upon reaction with various aldehydes afforded chalcones. The newly synthesized compounds were characterized by physical constants and by spectral methods viz. FT-IR, ¹H NMR & Mass spectra.

The *invivo* anti-inflammatory activity and the analgesic activity of the compounds were evaluated by Carrageenan-induced paw edema model in rats by measuring the paw volume and Acetic-acid induced writhing in mice by measuring the number of writhings respectively.

Some of the newly synthesized compounds showed good anti-inflammatory and analgesic activity.

Keywords: 2-Acetylidane-1,3-dione; *invivo* anti-inflammatory activity; analgesic activity.