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Synthesis and In-vitro Anti-inflammatory Activity of some 1- (4-methylsulphonyl amino methyl) phenyl -3, 5-diaryl-pyrazolines

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Abstract : New 1- (4-methylsulphonyl amino methyl) phenyl -3, 5-diaryl-pyrazolines (**3a-j**) bearing aryl and sulphanoamido pharmacophores were synthesized following convenient synthetic protocol as cyclocondensation of 1,3-diaryl 2-propene-1-ones (chalcones) (**2a-j**) and 4-(sulphonylamino methyl)-phenyl hydrazine hydrochloride (1) in ethanol and TEA . The 2-propene-1-ones (**1a-j**), required were freshly prepared by following Claisen-Schimidt condensation of substituted acetophenones and aryl aldehydes in alcoholic KOH. Synthesized intermediates and final compounds were characterized by FT I.R, ^{1}H NMR, MASS spectroscopic techniques and C, H, N & S analysis. Synthesized titled compounds were evaluated for in vitro anti-inflammatory activity by HRBC membrane stabilization method. Some of the synthesized compound showed good anti-inflammatory activity as compared to standard Diclofenac sodium.

Keywords: Chalcones, Trisubstitued pyrazolines, in vitro anti-inflammatory activity, HRBC membrane stabilization.

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