



Anti-inflammatory Activity of Some Newly 8-Hydroxy-7-iodo-5-sulfonamide Quinolines Linked Different Heterocyclic Ring Systems

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SUMMARY. The evolution of new drugs without side-effects limiting their use continues to be of great interest. The present study evaluated the anti-inflammatory activity of novel substituted quinoline based-chalcones incorporating different nitrogenous heterocyclic rings including pyrazolines, isoxazolines, and pyrimidines moieties using carrageenan induced paw edema assay. The investigation of anti-inflammatory screening revealed that five compounds, (**2b**, **3a**, **4b**, **5b** and **6a**) achieved significant activities with ulcer indices in the safe level. Among them, **3a** displayed potent anti-inflammatory effect higher than the positive control drug, celecoxib, at the dose of 5 mg/kg.

RESUMEN. La evolución de nuevos fármacos sin efectos secundarios que limitan su uso sigue siendo de gran interés. En el presente estudio se evaluó la actividad antiinflamatoria de nuevas chalconas basadas en quinolinas sustituidas que incorporaron diferentes anillos heterocíclicos nitrogenados incluyendo pirazolininas, isoxazolininas y pirimidinas, usando el ensayo de edema de pata de rata inducida por carragenano. La investigación de la detección antiinflamatoria reveló que cinco compuestos (**2b**, **3a**, **4b**, **5b** y **6a**) lograron actividades significativas con índices de úlcera en el nivel seguro. Entre ellos, **3a** mostró potente efecto antiinflamatorio superior al fármaco de control positivo, celecoxib, a la dosis de 5 mg/kg.

KEY WORDS: anti-inflammatory activity, chalcones, substituted quinoline derivatives.

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