



Anti-Inflammatory and Antipyretic Activities of Some Thiopyrimidine, Pyrazoline, and Thiazolopyrimidine Derivatives

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SUMMARY. A series of substituted pyridine derivatives from 2-chloro-6-ethoxy-4-acetylpyridine (**1-10**) which was previously synthesized, were screened for their antiinflammatory activities using the model of granuloma induced via cotton pellet and showed potent antiinflammatory activities confirmed by carrageenan animal model. Measuring the level of plasma prostaglandins showed reduction of PGE₂ by the tested compounds. The mechanism of antiinflammatory activities was COX-1 inhibitors, confirmed via evaluation of COX-1/COX-2 ratio. These compounds also have good antipyretic activities and lower ulcerogenic causing probabilities.

RESUMEN. Una serie de derivados de piridina sustituidos preparados a partir de 2-cloro-6-etoxi-4-acetilpiridina (**1-10**), previamente sintetizados, fueron ensayados por sus actividades antiinflamatorias utilizando el modelo de granuloma inducido a través de bolita de algodón, mostrando potente actividad antiinflamatoria, confirmada por el modelo animal de carragenina. La medición del nivel de prostaglandinas en plasma mostró una reducción de PGE₂ por los compuestos ensayados. El mecanismo de la actividad antiinflamatoria fue a través de la inhibición de la COX-1, confirmado a través de la evaluación de la relación COX-1/COX-2. Estos compuestos también tienen buenas actividades antipiréticas y pocas probabilidades de resultar ulcerogénicos.

KEY WORDS: anti-inflammatory and antipyretic agents, 2-chloro-6-ethoxypyridine-4-thienyl chalcone, pyrazoles, thiazolopyrimidine.

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