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Abstract (600 word limits)

The Non-steroidal anti-inflammatory drugs (NSAIDs) are medications widely used to relieve pain, reduce inflammation, and bring down a high temperature. NSAIDs are used to relieve symptoms of headaches, painful periods, sprains and strains, colds and flu, arthritis, and other causes of long-term pain. We have used five members of the NSAIDs family as ketoprofen, naproxen, fenoprofen, flurbiprofen and carprofen to obtain a series of new compounds interesting for analysing their biological activity.

Because of the number of contraindications and the incompatibility of the most of the NSAIDs with other drugs, it is of interest of obtaining new organic compounds enclosing a profen residue in the structure of its molecule.

Tryptamine is a bicyclic heterocycle and is the most important and best characterized member of the indole amine family. The tryptamine scaffold is regarded as a privileged structure, due to its broad applications for designing medicinal agents. The tryptamine and its analogues have been reported to display varied pharmacological activities, such as antimigraine, antibacterial, antitumor etc.

In considering the significant biological activities of tryptamine and also of the NSAIDs it is interesting the obtaining of new compounds structurally containing a tryptamine moiety as well as aryl propionic (NSAIDs) residue attached thereto.

In searching of easy and eco-friendly method for obtaining of the target compounds we have found described in the literature method. The method uses amines and carboxylic acids for obtaining amide bonds using DCC as dehydrating agent. N, N-dicyclohexylcarbodiimide (DCC) is a dehydrating agent commonly used for the synthesis of esters, amides or anhydrides.

DCC reacts with the carboxyl group of aryl propionic derivative to produce an activated acylation agent that reacts with the amino group of the tryptamine molecule to form an amide bond.

The resulting five new compounds (Reaxys) are characterized by their melting points, IR, 1H- and 13C-NMR spectra.

Keywords— Amides, Carprofen, Fenoprofen, Flurbiprofen, Tryptamine, Ketoprofen, Naproxen. NSAIDs.

Recent Publications (minimum 5)

1. Boutis K, Shannon M. Nephrotoxicity After Acute Severe Acetaminophen Poisoning in Adolescents. Journal of Toxicology: Clinical Toxicology. 2001;39(5):441-445.

2. Campbell N, Baylis B. Renal impairment associated with an acute paracetamol overdose in the absence of hepatotoxicity. Postgraduate Medical Journal. 1992;68(796):116-118.

3. Mour G, Feinfeld D, Caraccio T, McGuigan M. Acute Renal Dysfunction in Acetaminophen Poisoning. Renal Failure. 2005;27(4):381-383.

4. Ozkaya O, Genc G, Bek K, Sullu Y. A case of acetaminophen (paracetamol) causing renal failure without liver damage in a child and review of literature. Renal Failure. 2010;32(9):1125-1127.

5. Saleem M, Iftikhar H. A Rare Case of Acetaminophen Toxicity Leading to Severe Kidney Injury. Cureus. 2019.

Biography (200 word limit)

M.Sc. (1990), Ph.D. (2003) University of Plovdiv, Bulgaria. Prof Iliyan Ivanov's research interests include synthetic application of α-amidoalkilation reaction and development of new methods for obtaining of N-heterocyclic compounds. Prof. Ivanov developed a new alternative method for the synthesis of isoquinoline analogues. Subsequently, the method has been successfully applied for the synthesis of novel beta-carboline, quinazolinone, isochroman and other N- and O- heterocyclic derivatives. He is the author of more than 60 publications in the field of synthesis of heterocyclic compounds.

References (With Hyperlink)

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