

NIMESULIDE. ADVANTEGES AND DISADVANTEGES OF PHARMACOLOGICAL ACTIVITY.

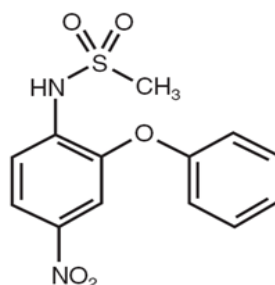
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Nimesulide, an anti-inflammatory and analgesic drug, was originally synthesized by Dr George Moore and his research team at Riker Laboratories, Minnesota in 1971. The drug was synthesized with the intention of providing a better therapeutic alternative in comparison to the existing class of non-steroidal anti-inflammatory drugs.



One of the problems with NSAIDs is that they block both types of the COX enzyme, so while inflammation and pain were reduced. Nimesulide is selective inhibitor of COX-2. Selective NSAIDs inhibit only the COX-2 enzyme, allowing for the production of the prostaglandins that protect the stomach, while still relieving fever, pain and inflammation. They do not have the anti-platelet effects associated with nonselective NSAIDs and so do not alter clotting. The clinical data and information from studies in experimental animal models strongly supports the epidemiological data showing that nimesulide has a relatively low risk of serious collateral reactions.

In my work have been described history, structure, mechanism of action, role of sulphonamide group of Nimesulide. Therefore, it will be possible to say about different advantages and disadvantages of this substance.

The importance of sulphonamide moiety in medicinal chemistry cannot be ignored as it constitutes an important class of extensively used drugs.

Antibacterial sulfonamides target a bacterial metabolic pathway as competitive inhibitors of the enzyme dihydropteroate synthetase, DHPS. Dihydropteroate synthetase activity is vital in the synthesis of folate, and folate is required for cells to make nucleic acids, such as DNA or RNA. So if DNA molecules cannot be built, the cell cannot divide, and the effect is bacteriostatic. Sulfa drugs do not cause the same disruption in animal cells, because our cells do not synthesize folate.