

Why are Nsaids not recommended in Asthmatic patients?

Answer;

-Inhibits the synthesis of Cox(I & II) leading to increase production of leukotrienes resulting in bronchoconstriction.

Explanation;

-The arachidonic acid serves as a precursor for the synthesis of prostaglandins and leukotrienes through the cyclooxygenase and lipoxygenase pathways respectively..

—Nsaids inhibits the cyclooxygenase(cox I & II) pathway thereby preventing the synthesis of prostaglandins as a result..

-This leaves more arachidonic acid substrate to be channelled through the Lipoxygenase pathway leading to the synthesis of more leukotrienes and it's associated chemical derivatives.

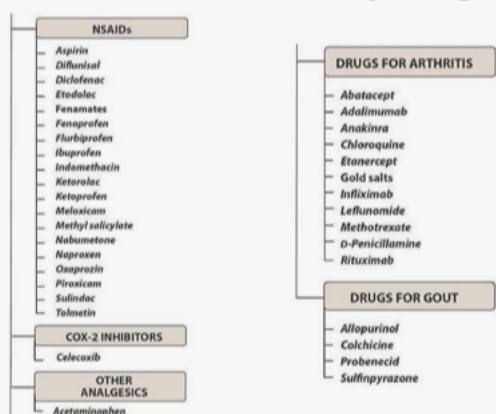
In asthma, leukotrienes contribute to bronchoconstriction, inflammation, and increased mucus production in the airways. They act by binding to specific receptors on smooth muscle cells in the airways, causing the muscles to contract and leading to narrowing of the bronchial tubes.

This bronchoconstriction makes breathing difficult and contributes to the characteristic symptoms of asthma, such as wheezing, coughing, and shortness of breath.

Leukotrienes also promote inflammation in the airways by attracting and activating other inflammatory cells, such as eosinophils and neutrophils. These cells release additional inflammatory substances, leading to further airway inflammation and damage. Inflammatory processes can result in the swelling of the airway lining and an increase in mucus production, further obstructing the airways and impairing normal airflow.

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Anti-Inflammatory Drugs



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