ANTIHISTAMINES

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Introduction

Antihistamines have been widely used as treatment of different allergic conditions such as allergic rhinitis, allergic conjunctivitis and urticaria. Recently, it was speculated that it can be used in the treatment of COVID-19 infection because of its action on mast cells. Mast cells have been hypothesized as the primary source of cytokine release that leads to lung damage in SARS-CoV-2.

Mechanism of Action

H1-antihistamines downregulate allergic inflammation directly through the H1-receptor. They interfere with histamine action at H1-receptors on sensory neurons and small blood vessels. Through the inhibition of the ubiquitous transcription factor nuclear factor-kB, they also decrease antigen presentation, expression of proinflammatory cytokines and cell adhesion molecules, and chemotaxis. In a concentration-dependent manner they inhibit mast cell activation and histamine release.

Clinical Studies

There are no published clinical trials examining the use of antihistamines in COVID-19. However, antihistamines combined with low-dose systemic steroids can play a role in the control of COVID-19 related urticarial rashes.

Conclusion

There have been no studies examining the use of antihistamines in COVID-19. Clinical trials would be required to establish whether these drugs may be used for treatment of this disease.

REFERENCES: