

Histamine

Histamine is an organic compound stored in the mast cells and granules of basophils, which serves as a hormone and neurotransmitter. It is one of the primary mediators of inflammation. Histamine is released from the mast cells and granules under an influence of various inducements, such as allergens, **radiation** etc. Histamine is known for its role in the acute anaphylactic reaction for the presence of allergen, when it is being released after the allergen binds with IgE antibody.

This is followed by a reaction mediated mainly by stimulation of **H₁ receptors**:

1. Vasodilatation of small arterioles and capillaries
2. Increased permeability of vascular wall and the following occurrence of edemas
3. Bronchial constriction

H₂ receptors

They are located in the heart, vessels, brain, stomach and the womb. Their function is best elucidated in the stomach, where the stimulation leads to a secretion of HCL. Compounds such as ranitidine (**H₂-blockers**) are blocking these receptors, which leads to a decrease of a HCL secretion (peptic ulcers treatment). The effects of histamine can be specifically blocked with the use of antihistamines.

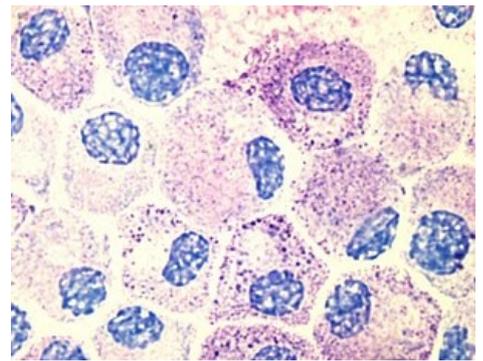
Links

Related articles

- Antihistamines
- Allergy
- Inflammation mediators, alarmins

Used literature

- MARTÍNKOVÁ, Jiřina, Stanislav MIČUDA a Jolana ČERMÁKOVÁ. *Vybrané kapitoly z klinické farmakologie pro bakalářské studium : Histamin, antihistaminika* [online]. ©2001. [cit. 2010-07-12]



Mast cells