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Title

**NEUROTRANSMITTER HISTAMINE :  
AN ALTERNATIVE VIEW POINT**

Authors

**F. Batmanghelidj, M.D.**

Institute

**Foundation For The Simple In Medicine,**

**2146 Kings Garden Way, Falls Church, VA. 22043, U.S.A.**

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**ABSTRACT:** Advances in histamine research show it to be a neurotransmitter, a neuromodulator and an osmoregulator of the body. While thirst sensation is a failing indicator of now recognized, age-dependent, state of possible cellular and chronic dehydration of the body, to the point that between the ages of twenty to seventy the ratio of the extracellular to the intracellular water content of the body has been shown to change from a figure of 0.8 to almost 1.1, histamine is demonstrating responsibility for the essential osmoregulatory and central dipsogenic functions in the body. Histamine is involved in the initiation of cellular cation exchange, that seems to be supplemental to the role of water in cellular metabolic mechanisms. Histamine is also a modulator of lymphocyte biology and function; through H<sub>1</sub> or H<sub>2</sub> activation of the different lymphocyte subpopulations that have nonrandom distribution of histamine receptors, their functions are integrated. Histaminergic drive for body water regulation and intake brings about the release of vasopressin, which in turn, by possible production of "shower head" cluster perforations of 2 Angstrom units, allowing single file entry of one water molecule at a time through the membrane, promotes increased flow of water through the cell membrane; this function is particularly important for the maintenance of the low viscosity, microtubule directed, microstream flow of the axonal transport system. Vasopressin seem also to act as a modulating cortisone release factor, when constant ACTH secretion can be implicated in the general inhibition of the immune system's functions; histamine may be involved in modulation of neuroendocrine systems, possibly when ACTH feedback mechanism is broken. Next to oxygen water is the single most essential substance for the survival of the body, also recognizing that the dry mouth is not the sole indicator of "free water" deficiency of the body, symptom producing excess histaminergic activity, including chronic pain production, should be judged to be also an indicator of body water metabolism imbalance. The natural primary physiological drives of the histaminergic, the serotonergic neurotransmission (another system involved in the body water regulation, as well as pain threshold alteration) and the angiotensin II for water intake of the body should be acknowledged and satisfied before and during evaluation of the clinical application of antihistamines in treatment procedures, particularly as increased water intake may be the only natural process for the regulation and inhibition of histamine's over production and release. The prolonged use of antihistamines in gastroenterological, psychiatric, seasonal allergic conditions, as analgesics or anti-inflammatory agents without very strict attention to body water intake regulatory functions of histamine, by also masking signals of dehydration, may eventually be the cause of cell membrane receptor down-regulation and disturb the integration and balance, and possibly, shift the immune system in an opposite dominant direction and therefore, be responsible for the production of new and continuing change of physiological steady-state situations, incompatible with the total and prolonged well-being of the patient.

**Key Words:** *Histamine, pain, inflammation, immunomodulation, thirst, water*

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