URTICARIA, ANGIOEDEMA

HIGH LEVELS OF IGE AGAINST TISSUE FACTOR AND THYROGLOBULIN ARE REDUCED BY OMALIZUMAB IN CHRONIC SPONTANEOUS URTICARIA

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Background: The pathogenesis of chronic spontaneous urticaria (CSU) is not completely defined, although different biologic systems, i.e. autoimmunity, coagulation and autoallergy, have been demonstrated to be involved. Here, we investigated the possible role of IgE to tissue factor, that is the main initiator of coagulation, and thyroglobulin, evaluating the effect of the anti-IgE omalizumab on the basophil-IgE system in CSU.

Methods: We measured specific IgE to tissue factor and thyroglobulin and performed the cellular antigen stimulation test (CAST) in 15 CSU patients before and after omalizumab treatment and 15 normal controls.

Results: CSU patients showed elevated baseline levels of IgE to tissue factor (p=0.001) and thyroglobulin (p=0.001), which dropped one week after omalizumab administration (p=0.009 and p=0.004, respectively). The one-week drops of IgE to tissue factor and thyroglobulin were directly correlated with the drop of urticaria activity score 7 (UAS 7) at two months of omalizumab treatment ([r=0.564, p=0.028] and [r=0.667, p=0.007], respectively).

Conclusions: The observation that in patients with CSU there are elevated levels of IgE to tissue factor and thyroglobulin which decrease after remission obtained with an anti-IgE treatment supports the role of autoallergy in CSU pathophysiology.