

# IgE and High Affinity IgE Receptor in Chronic Inducible Urticaria, pathogenic and management relevance

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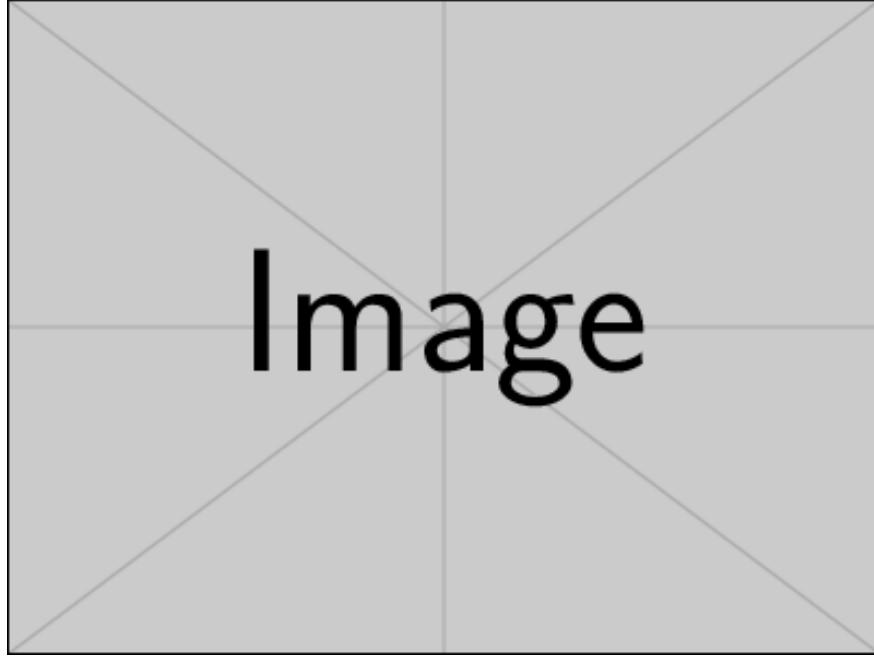
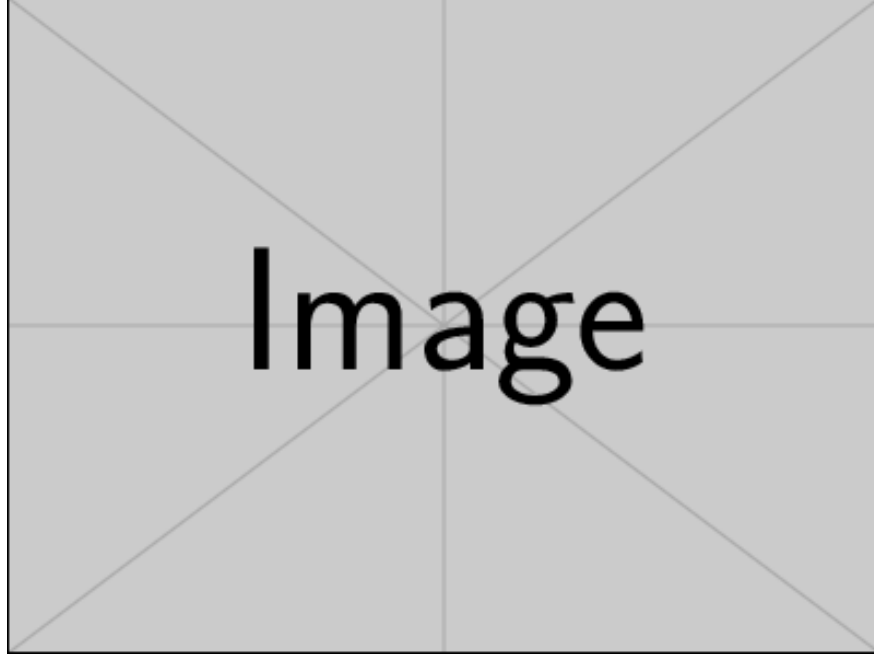
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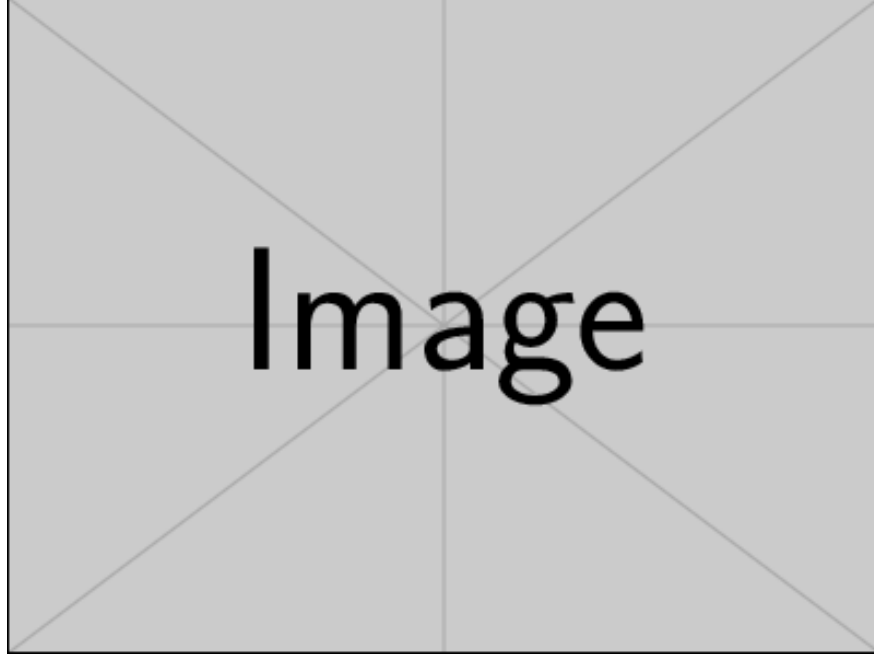
## Abstract

**BACKGROUND:** IgE and High-affinity IgE receptor (FcεRI) expression on basophils has been scarcely explored in patients with chronic inducible urticaria (CIndU). **OBJECTIVES:** To investigate baseline serum IgE and FcεRI expression on blood basophils in a large cohort of CIndU patients and its relationship to treatment response. **METHODS:** Baseline total serum IgE and basophil FcεRI expression measured by flow cytometry in 165 patients with CIndU was studied. The relationship of both parameters with the response to antihistamine and anti-IgE (omalizumab) treatment was considered in a subsample of CIndU patients. FcεRI expression in basophils was assessed by mean fluorescence intensity (MFI) and basophil FcεRI standardized density (receptors/cell). **RESULTS:** The median FcεRI expression standardized per density in blood basophils was found significantly higher in patients with CIndU compared to HCs. A positive correlation was found between IgE serum levels and basophil FcεRI expression. Basal FcεRI expression was not related to antihistamine treatment response. However, it was related to omalizumab, and patients responding to omalizumab showed higher basal basophil expression of FcεRI levels. Non-responders to the antihistamine showed significantly higher IgE serum levels. **CONCLUSIONS:** FcεRI receptor overexpression in patients with CIndU shows almost the same pattern than Chronic Spontaneous Urticaria. It seems to be independent of CIndU subtypes. Although additional studies would be welcome, our work highlights the relevance of FcεRI receptor regulation in CIndU supporting the autoimmune pathogenesis and suggest that CIndU patients benefit from anti-IgE therapy.

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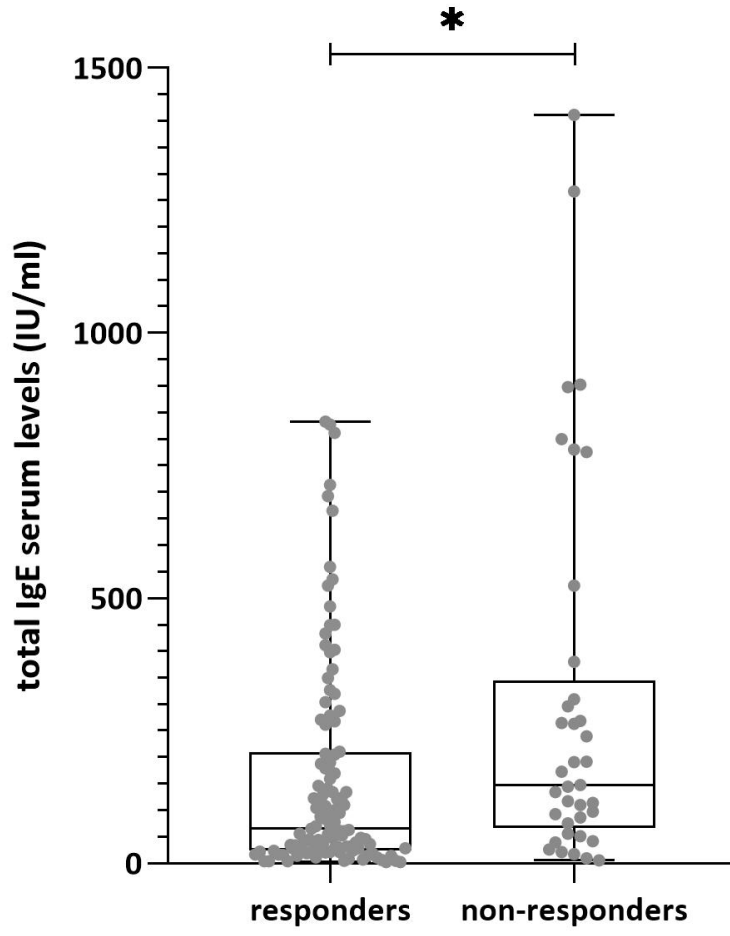


Figure 4\_Giménez-Arnau et al.