Lack of association between neuropeptide S receptor 1 gene (NPSR1) and eczema in five European populations.

Eczema is often associated with development of allergic asthma. The Neuropeptide S Receptor 1 (NPSR1) gene has previously been associated with asthma and elevated serum IgE levels. The aim of this study was to investigate a potential association between the NPSR1 gene and eczema in patients and healthy individuals from five different populations in Western Europe, in total 6275 individuals. Seven single nucleotide polymorphisms previously associated with allergic asthma were genotyped. The protein expression of NPSR1 in the skin was studied using immunohistochemistry in six eczema patients and eight healthy individuals. No association was found between eczema and the seven single nucleotide polymorphisms in NPSR1 in any of the populations, either independently or in combinations. In addition, no difference was detected in epidermal NPSR1 expression between eczema patients and healthy individuals. These results strongly suggest that NPSR1 is not involved in the pathogenesis of eczema.