

David Castillo, Paula A. Chacón-Jaramillo, Sara Muñoz-Ordoñez, María J. Sánchez-Zapata, Jesus D. Fierro-Lozada, Jennipher A. Blanco-Gómez, David E. Castillo Saavedra

## Introduction

Urticaria is a mast cell driven disease characterized by the sudden appearance of transient hives and/or angioedema. It can be classified based on its duration as acute ( $\leq 6$  weeks) or chronic ( $>6$  weeks) and whether there is or not an eliciting factor as inducible or spontaneous, respectively. The presence of allergic conditions such as atopic dermatitis, asthma, rhinitis and autoimmune, cardiovascular and mental diseases have been associated with higher prevalence and increased risk of developing urticaria, particularly the chronic subtype. The aim of this study is to describe epidemiological characteristics and the frequency of comorbidities in patients with a diagnosis of urticaria who attended a dermatological center in Bogotá, Colombia.

## Materials and methods

We performed a retrospective observational study among 195 patients diagnosed with urticaria between January 2016 and March 2021. We evaluated variables such as sex, age, urticaria subtype, presence of hives and angioedema and active lesions during the medical visit. Also, we assessed concomitant comorbidities including cardiovascular diseases (venous insufficiency, arrhythmias, hypertension and stroke), pulmonary diseases (asthma and chronic obstructive disease), gastrointestinal disease (gastritis, gastroesophageal reflux, hiatal hernia, irritable colon), endocrinologic diseases (diabetes mellitus, hypothyroidism, goiter, pituitary adenoma, pre-diabetes and hypoglycemia), metabolic disease (dyslipidemia, hepatic steatosis, obesity and obesity) and autoimmune diseases (rheumatoid arthritis and raynaud's phenomenon), as well as history of atopy and food/drug allergies. Data was collected and analyzed using Microsoft® Excel and SPSS 26.

## Results

Of 195 patients 77.9% (n=152) were women. The median age was 46 years (IQR 30). Chronic urticaria was the most frequent presentation (83.1%). Moreover, 93.8% (n=183) of the patients exhibited hives and 23.1% (n=45) angioedema. In this group of patients 47.7% (n=93) had active lesions during the physical exam. Regarding patients' personal history, the most common comorbidity was cardiovascular disease up to a quarter of patients (25.6%), being hypertension the most frequent in 82.0% of the cohort. Moreover, endocrine diseases were found in 19.5% of the patients, where hypothyroidism was the disease from which more patients suffered, autoimmune diseases in 2.5% being AR the most frequent. Additionally, history of allergy and atopy was found in 16.9% and 17.9% respectively. Among the above group, drug allergies were the most frequent (62.5%), and in patients with atopy, rhinitis was the most common (13.3%), followed by asthma (3.5%).

## Conclusions

More than two thirds of our patients were females, as it is reported in the literature. Based on our results, we suggest approaching urticaria thoroughly with atopic and cardiovascular diseases due to its higher burden, as well as endocrine and autoimmune diseases, although we found the latter to be less frequent. Hence, individuals diagnosed with urticaria are a multimorbid group of patients and should be addressed in an interdisciplinary manner.

Comorbidities in patients with urticaria

