

## Abstract

**Objective:** A retrospective study was done in order to detect the prevalence of thyroid autoimmunity in patients with urticarial vasculitis (UV).

**Patients and Methods:** The patients were collected from 2002 until 2005. We analyzed 161 self-referred patients who came to our allergy service, claiming urticaria. We defined UV based on clinical and histopathological criteria. We defined thyroid autoimmunity based on the elevated value of specific antibodies.

**Results:** Out of the analyzed patient, 13,04 % (21) were diagnosed with UV. Most of the patients (90, 48%) were female. The mean age was 49, 24 +/- 17,3 years. Stress was the main cause that triggered the symptoms appearing in 52, 38% of the patients and artralgia was the most common systemic manifestation. We found 6 patients with both antiperoxidase and antithyroglobulin positive antibodies elevated. None of the male patients turn out to be positive.

**Conclusions:** Our prevalence of UV was similar to the reported in the international data among those patients. Among these patients the prevalence of positive thyroid antibodies, was higher than the one expected on the general population. There is a lack of information about association of UV with thyroid disease; our findings justify further research.

## Background

As part of our diagnosis protocol of chronic urticaria, we always ask for thyroid antibodies in order to look for thyroid autoimmunity (TA). TA has a different treatment approach and a reported prevalence of 14%<sup>1</sup>.

Although there is paucity of data describing thyroid autoimmunity on patients with diagnosed Urticarial Vasculitis, based on observational suspicion, we decided to look for the correlation. We believe that potential new treatment options for UV justifies the evaluation of our data to look for the prevalence of this coexistence.



FIG 1. Urticarial Vasculitis with Thyroid manifestations

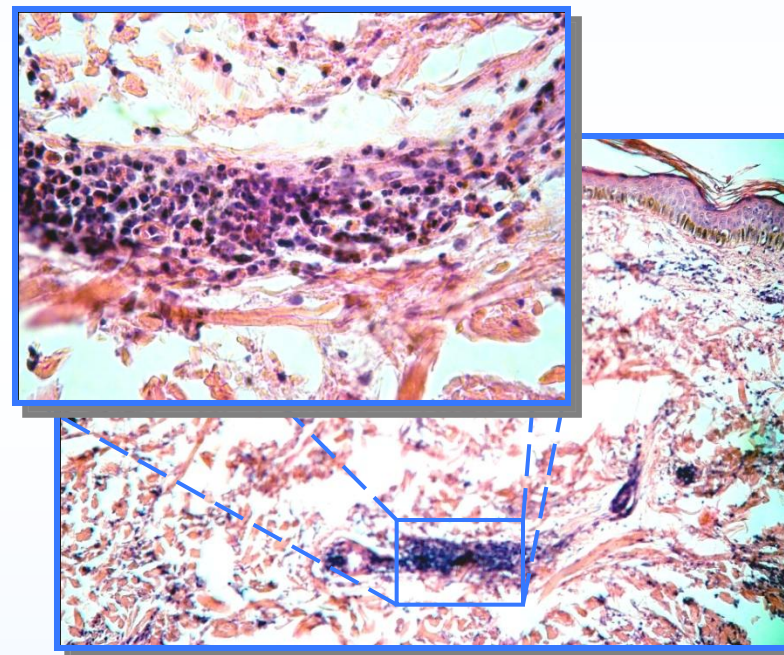


FIG 2.- Histopathology of an UV lesion. Presence of Leukocytoclasia

## Methods

We designed a Cross Sectional retrospective study, based on the records of the allergy service of the Luis Vernaza Hospital from 2002 to 2005.

**Population and Administration.-** Our study was carried out in Guayaquil is the largest city in Ecuador, with a population over 2 million people. As a referral center, we also receive a considerable amount of patients from all over the country. We analyzed 161 self-referred patients who came to our allergy service, claiming urticaria. We tabulated the selected variables on an excel table.

**Variables Definition.-** The main variables were UV and thyroid autoimmunity. We defined UV based on clinical and histopathological criteria. Leukocytoclasia (**FIG 2**) is the main manifestation of this pathology, characterized by fragmentation of neutrophils resulting in scattered nuclear fragments or nuclear dust<sup>2</sup>.

We defined thyroid autoimmunity based on the presence specific antibodies. We considered it as the positive result to both: Antiperoxidase and Antithyroglobulin antibodies elevated.

**Statistical Issues.-**

For statistical analyses, we used Microsoft Excel. We cross tabulated to assess frequencies and prevalence. Student's t-test or the Chi-square test were used, as appropriate, to examine univariate associations. A p-value <0,05 was considered as statistically significant.

## Results

•We found 6 patients with both antiperoxidase and antithyroglobulin positive antibodies. None of the male patients turn out to be positive. The odds ratio of being a woman with urticaria vasculitis an have positive antithyroid antibodies was 12,35.

	Positive	Negative	n	OR	p
Age	46,3 ± 18,5	51 ± 18,15	49,7 ± 17,5	-	0,29
Sex					
Male	0	100	2	-	-
Female	31,58	68,42	19	12,35	0,5
Complement					
Low c3	100	0	2	∞	0,07
Low c4	33,33	66,67	3	1,3	0,65

## Conclusion

Our prevalence of UV was similar to the reported in the international data among those patients. However, among these patients the prevalence of positive thyroid antibodies, was higher than the one expected on the general population.

As a retrospective study we have potential methodological weaknesses. Important data may have been lost pervious to the analysis. Another problem is that being a referral center our prevalence may not accurately show the one of the general population. However we do believe to hold a strong external validity applicable for the most of allergy services on the rest of the referral centers in Ecuador.

The association of UV with thyroid disease is only been reported by one author<sup>3</sup>. Our findings justify further research. Since thyroid related urticaria may respond to specific treatment, our study discloses the possibility of new treatment options for urticarial vasculitis

## References

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