



Q / Chronic urticaria: What diagnostic evaluation is best?

EVIDENCE-BASED ANSWER

A / A DETAILED HISTORY AND 6-WEEK TRIAL of an H₁ antihistamine are the best diagnostic evaluations for chronic urticaria. More extensive diagnostic work-up

adds little, unless the patient's history specifically indicates a need for further evaluation (strength of recommendation: **B**, inconsistent or limited-quality evidence).

Evidence summary

Chronic urticaria affects 1% of the general population and is usually defined as the presence of hives (with or without angioedema) for at least 6 weeks.¹

History and physical are key, a few tests may be useful

A systematic review of 29 studies involving 6462 patients done between 1966 and 2001 found no strong evidence for laboratory testing beyond a complete history and physical. However, the authors recommended that patients with chronic idiopathic urticaria have an erythrocyte sedimentation rate (ESR) measurement, white blood cell (WBC) count, and differential cell count.² A primarily expert-opinion-based guideline on chronic urticaria recommended a WBC count, ESR, urinalysis, and liver function tests to screen for underlying diseases.³

Is aggressive testing worth the effort?

It would appear not. A prospective study of 220 patients, representative of the studies included in the systematic review, compared 2 strategies to evaluate the cause of chronic urticaria:

- Detailed history taking and limited laboratory testing (hemoglobin, hematocrit, ESR, WBC count, and dermatographism test [hive associated with a scratch])
- Detailed history taking and extensive

laboratory evaluation with 33 different tests, many of them special and invasive (radiographs, vaginal cultures, and skin biopsies).⁴

Detailed history taking and limited laboratory tests found a cause for urticaria in 45.9% of patients, compared with 52.7% of patients who underwent detailed history taking and extensive laboratory screening.⁴ This translates into testing 15 patients aggressively to diagnose one potentially reversible cause of chronic urticaria.

Among patients evaluated with a detailed history and extensive diagnostic work-up, 33.2% had physical urticaria (triggered by pressure, cold, heat, and light). Other diagnoses included adverse drug reactions (8.6%), adverse food reactions (6.8%), infection (1.8%), contact urticaria (0.9%), and internal disease (1.4%). No cause was identified in 47.3% of the patients.⁴

Recommendations

The British Association of Dermatologists has issued the following guidelines for evaluation and management of urticaria in adults and children:⁵

- The diagnosis of urticaria is primarily clinical.
- Diagnostic investigations should be guided by the history and shouldn't be performed in all patients.

Cliff R. Smith, DO, MS;
Robert K. Persons, DO
Eglin Air Force Base, Family
Medicine Residency, Fla

Rita Smith, MLS
Medical Librarian, Lackland Air
Force Base, Tex

ASSISTANT EDITOR
Paul Crawford, MD
Nellis Air Force Base, Family
Medicine Residency, NV

ACKNOWLEDGMENTS
The opinions and assertions contained herein are the private views of the authors and should not to be construed as official or as reflecting the views of the US Air Force Medical Service or the US Air Force at large.

JFP

CONTINUED

References

1. Tedeschi A, Girolomoni G, Asero R; AAITO Committee for Chronic Urticaria and Pruritus Guidelines. AAITO position paper. Chronic urticaria: diagnostic workup and treatment. *Eur Ann Allergy Clin Immunol.* 2007;39:225-231.
2. Kozel MM, Bossuyt PM, Mekkes JR, et al. Laboratory tests and identified diagnosis in patients with physical and chronic urticaria and angioedema: a systematic review. *J Am Acad Dermatol.* 2003;48:409-416.
3. Joint Task Force on Practice Parameters. The diagnosis and management of urticaria: a practice parameter, part I: acute urticaria/angioedema; part II: chronic urticaria/angioedema. *Ann Allergy Asthma Immunol.* 2000;85:521-544.
4. Kozel MM, Mekkes JR, Bossuyt PM, et al. The effectiveness of a history-based diagnostic approach in chronic urticaria and angioedema. *Arch Dermatol.* 1998;134:1575-1580.
5. Grattan CE, Humphreys F, British Association of Dermatologists Therapy Guidelines and Audit Subcommittee. Guidelines for evaluation and management of urticaria in adults and children. *Br J Dermatol.* 2007;157:1116-1123.