CHRONIC URTICARIA: A RARE CASE PRESENTATION

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Abstract

Introduction. Urticaria is a frequent condition, characterized by the presence of highly pruritic, erythematous-edematous, disseminated lesions, that affects up to 20% of the general population at least once during lifetime. Chronic urticaria implies intermittent lesions, at least twice a week, for at least six weeks. It remains a significant problem in terms of etiology and diagnosis. Management of urticaria is complex and complete remission is rarely obtained. Material and methods. A 66-year-old female presented for consultation with multiple, erythematous, well-circumscribed, highly pruritic papules and plaques localized on the thorax and lower limbs, with an intermittent evolution for one year. Also, an episode of angioedema five months prior was mentioned. No specific provoking factor could be identified at initial admission. Results. Laboratory investigations were negative for infections, autoimmune or thyroid disorders. Tumor markers (CEA, CA 15.3, CA 125, CA19.9) were within normal limits. The level of Ig E antibodies was normal. However, the level of IgG antibodies to Toxoplasma gondii was found to be extremely high, reaching 46.398 UI/mL. The therapeutic approach was the administration of azithromycin 500 mg daily for 21 days and oral antihistamines, with favorable evolution.

Discussions. Urticaria is one of the 10 most common dermatoses and is defined by the presence of pruritic wheal-like lesions and angioedema. In a state hospital from Bucharest, in 2017, 67% of patients presented as emergencies at the Consultation Room with acute urticaria, 21% of patients were treated as out-patients with different forms of acute and chronic urticaria, whereas 12% of admitted, in-patients presented with some form of chronic urticaria. This paper reports a severe case of chronic urticaria, with a long history of recurring, disseminated lesions for almost one year. Specific associations and aspects were identified. A correct and rapid diagnosis is essential in this pathology for improving quality of life for these patients. Conclusions. CU is a frequent condition with a major impact on the quality of life for patients. Although most cases remain without a known cause, a correct and thorough approach of the patient should be chosen. Peculiar causes should be taken into consideration and frequently a multidisciplinary perspective is the best choice. In this case report, a long-term evolution of CU with a significant impact on the quality of life for this patient identified a rare association with a Toxoplasma gondii infection with a favorable outcome.


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Introduction

Urticaria or hives (meaning “to burn” – from the Latin word “urtica”) is a frequent condition, characterized by the presence of highly pruritic, erythematous-edematous, disseminated lesions. It affects up to 20% of the general population at least once during lifetime, and in almost 30% of cases lesions recur for months or even years (1). The peak of incidence is between 20 and 40 years of age.

Acute urticaria is defined as lesions that persist for less than six weeks. Chronic urticaria (CU) implies the appearance of intermittent lesions, at least twice a week, for at least six weeks (2).

CU remains a significant problem in terms of etiology, diagnosis and management despite of recent advancements. Some of the most frequently implicated factors include drugs (aspirin, penicillin, codeine, angiotensin converting enzyme inhibitors), food and food additives, infections (viral infections most frequently), systemic disorders (thyroid dysfunctions, autoimmune diseases, vasculitis, neoplasms), different allergens or pseudo-allergens. Despite extensive laboratory investigations, CU remains idiopathic in more than 50% of cases (3).

Recent studies established a new classification for CU into chronic spontaneous urticaria (CSU) (former chronic idiopathic urticaria, without a known cause) and chronic inducible urticaria (CIU) (which includes symptomatic urticarial dermographism, cold urticaria, pressure urticaria, solar urticaria, cholinergic urticaria, etc) (4).

Management of urticaria is complex and complete remission is rarely obtained. Treatment includes modern second-generation antihistamines, short courses of systemic corticosteroids, immune modulating medications and Ig G anti-Ig E monoclonal antibodies (5).

Case report

A 66-year-old female from urban environment presented for consultation with multiple, erythematous, well-circumscribed papules and plaques localized on the thorax (Figure 1) and lower limbs. The lesions were highly pruritic and had an oscillating evolution, usually developing in the early morning, persisting for approximately one hour and reappearing the next day.

The patient reported similar daily episodes with one year of evolution and one episode of angioedema five months prior that involved the lips and cheeks and that was successfully treated with intravenous corticosteroids and oral antihistamines.

The patient could not associate the appearance of the eruption with any infection, food, drug or lifestyle changes. Even though the patient underwent several medical consultations, multiple serologic investigations and imaging studies were made, no specific cause was identified, and no improvement of the disease was noted under oral corticosteroids and antihistamines. Dermatology Quality of Life Index (DLQI) was measured and a score of 20 points (ranging from 0 to 30 points) revealed a high impact on the quality of life for the patient. Also, on the 100 mm visual analogue scale (VAS) for pruritus, an 85 mm score was obtained.

Personal medical history included diabetes mellitus type II and arterial hypertension, following chronic therapy with metformin, candesartan and indapamide for several years, prior to the onset of the lesions.

Laboratory investigations were negative for staphylococcal or streptococcal infections or for a chronic infection with the hepatitis B or C viruses. Autoimmune or thyroid disorders were also excluded by a normal thyroid function and by the absence of any specific antibodies. Tumor markers (CEA, CA 15.3, CA 125, CA19.9) were within normal limits.

Furthermore, the level of Ig E antibodies was normal. However, the level of IgG antibodies to Toxoplasma gondii was found to be extremely high, reaching 46398 UI/mL. No recent or previous close animal contact was mentioned.

An interdisciplinary consultation at the Department of Parasitological Diseases of the Hospital was made to establish the therapeutic approach. Azithromycin 500 mg daily for 21 days and oral antihistamines were prescribed. The patient responded well to the treatment, without any notable side effects.

The overall evolution of the disease was favorable, with a significant decrease of the frequency...
Case presentation

and extension of the lesions after the first week of treatment. New lesions could not be noted post-treatment for three months so far.

Discussions

Urticaria is one of the 10 most common dermatoses in the general population. Due to its frequently chronic course, in almost 30% of cases, urticaria implies a significant impact on the patients’ quality of life (6).

In a 2011 retrospective analysis from the National School of Public Health, Management and Professional Development – Bucharest, Romania, it was shown that, at the national level, the total number of “minor diseases of the skin” patients was 26163, with 12227 cases treated in dermatological units (Figure 2). Allergic urticaria (L50.0) was the most frequent diagnosis, with 6717 patients. Dermatologists were involved in the management of 3097 cases of urticaria (L50.0) (Figure 3).

In 2014, the number of cases dropped: 16855 cases of “minor diseases of the skin” were managed at a national level, with only 6697 cases treated in a dermatological unit (Figure 2). Allergic urticaria (L50.0) was the most frequent diagnosis, with 6717 patients. Dermatologists were involved in the management of 3097 cases of urticaria (L50.0) (Figure 3).

In 2017, in our hospital there were 5780 cases for consultation, with 184 of them having urticaria. From those patients, 124 (67%) presented as emergencies at the Consultation Room with acute urticaria, 38 (21%) were treated as out-patients with different forms of acute and CU, whereas 22 (12%) were admitted as in-patients with some forms of CU (Figure 4).

Several etiologies are implicated in CU’s pathogenesis, even though most cases remain idiopathic. A complete and thorough examination of the patient is essential for the management of this condition.

In this case report, the most frequently implicated etiologic factors were excluded by a complete physical examination, a detailed personal history and by serologic investigations. Bacterial and viral investigations were excluded by a normal and complete blood count. Frequently implicated pathogens in CU include Helicobacter pylori, Giardia lamblia, Fasciola hepatica, Echinococcus granulosus and Strongyloides stercoralis (7). Thyroid function was within normal limits, no specific antibodies could be identified, and no tumor markers were elevated. No specific drugs (aspirin, codeine) or food usually associated with CU could be related to the urticarial episodes (8).

Furthermore, even though almost 30% of patients with CU present with elevated levels of anti-Ig E antibodies (9), this case presented within normal limits.

A specific IgG antibody test to Toxoplasma gondii was performed and identified an alarming high value of 46398 UI/mL. Although most immunocompetent individuals infected with toxoplasmosis remain asymptomatic throughout life (10) and few cases of this association are reported (11), chronic toxoplasmosis should be taken in consideration in patients with CSU.

An important aspect in patients with CU is measuring the severity of symptoms and signs, CU being a disorder with a high impact on the quality of life for most patients. This includes the number of lesions appearing during 24 h, the affected body surface...
This work reports a severe case of CU, with a long history of recurring lesions for almost one year and disseminated lesions on the thorax and lower limbs. An episode of angioedema was also present in this period, angioedema occurring in almost 50% of patients with CU (13).

Pruritus is often considered the most troublesome symptoms of CU. A study on 97 CSU patients revealed daily pruritus in 70% of cases, with the highest intensity of the pruritus at night (47% of patients) and in the evening (38% of patients) (14).

In this case report, VAS of 85 mm and DLQI of 20 points suggest an important impact on the quality of life for this patient.

Regarding the management of this condition, the EAACI/GA2LEN/EDF/WAO Guideline (15) is mostly in use and recommends modern second-generation antihistamines, short courses of systemic corticosteroids, immune modulating medications and IgG anti-IgE monoclonal antibodies.

**Conclusion**

CU is a frequent condition with a major impact on the quality of life for patients. Although most cases remain without a known cause, a correct and thorough approach of the patient should be chosen. Peculiar causes should be taken into consideration and frequently a multidisciplinary perspective is the best choice.

In this case report, a long-term evolution of CU with a significant impact on the quality of life for this patient identified a rare association with a Toxoplasma gondii infection.

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