EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 477

Results From Two Phase 3 Studies of Dupilumab in CSU

Marcus Maurer[1, 2], Thomas Casale[3], Sarbjit Saini[4], Moshe Ben-Shoshan[5], Ana M Giménez-Arnau[6], Jonathan A Bernstein[7], Akiko Yagami[8], Allen Radin[9], Eric Mortensen[9], Deborah Bauer[10], Tayler Gonzalez[11], Sonya L Cyr[9], Philip Sugerman[11], Elizabeth Laws[10]

[1]Charité – Universitätsmedizin Berlin, Berlin, Germany,[2]Fraunhofer-Institute for Translational Medicine and Pharmacology ITMP, Berlin, Germany, [3]University of South Florida, Tampa, United States,[4]Johns Hopkins Asthma & Allergy Center, Baltimore, United States, [5]McGill University Health Centre , Montréal, Canada,[6]Hospital del Mar IMIM, Universitat Autònoma de Barcelona, Barcelona, Spain, [7]University of Cincinnati College of Medicine, Cincinnati, United States, [8]Fujita Health University school of medicine, Tokyo, Japan,[9]Regeneron Pharmaceuticals, Inc., Tarrytown, United States, [10]Sanofi US, Bridgewater, United States,[11]Sanofi, Cambridge, United States

Introduction & Objectives:

Many patients with chronic spontaneous urticaria (CSU) remain symptomatic despite H1-antihistamine and/or anti-IgE (omalizumab) treatment. Dupilumab safety and efficacy were examined in patients who remained symptomatic despite H1-antihistamines and were omalizumab-naïve or omalizumab-intolerant/incomplete responders.

Materials & Methods:

LIBERTY-CSU CUPID (NCT04180488) was a randomized, placebo-controlled, 24week phase 3 trial of dupilumab in patients with CSU who were symptomatic despite H1-antihistamines (up to 4-fold approved dose) and omalizumab-naive (Study A; aged ≥6 years) or omalizumab-intolerant/incomplete responders (Study B; aged ≥12 years). Patients received dupilumab (300 mg) subcutaneously every 2 weeks (Study A/Study B: n=70/n=54) or matched placebo (Study A/Study B: n=68/n=54). Planned interim analyses for Study B met prespecified futility criteria. Letters were issued to investigators; however, only 2 patients had missing Week 24 values due to early termination. The full blinded dataset (N=108) was available to test against the remaining alpha (0.043) for significance. Efficacy endpoints included Urticaria Activity Score over 7 days (UAS7; range 0–42; EU primary/US key secondary) and Itch Severity Score over 7 days (ISS7; range 0–21; US primary/EU key secondary).

Results:

In Study A, Week 24 least squares (LS) mean change from baseline (dupilumab/placebo) in UAS7 was −20.5/−12.0 (*P*=0.0003); ISS7, −10.2/−6.0 (*P*=0.0005). In Study B, Week 24 LS mean change from baseline in UAS7 (dupilumab/placebo) was −14.4/−8.5 (*P*=0.0390; statistically significant as EU primary endpoint; nominally significant as US key secondary endpoint). Numerical improvement in ISS7 at Week 24 (dupilumab/placebo: −7.7/−4.8) was not statistically significant (*P*=0.0449; significance at *P*<0.043). Incidence of treatment-emergent adverse events for dupilumab/placebo was 38 (54.3%)/40 (58.8%) in Study A and 33 (61.1%)/29 (53.7%) in Study B.

Conclusion:

Study A met EU/US primary endpoints (UAS7/ISS7). Study B met EU primary endpoint (UAS7) but not US primary endpoint (ISS7; P=0.0449; prespecified threshold *P*<0.043 postinterim analysis). Overall tolerability was consistent with the known dupilumab profile.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 765

Urticaria id-reaction in tinea infections: Case series

Tiar Marina Octyvani*[1]

[1]Primaya Evasari Hospital, Department of Dermatology, Venereology, and Aesthetics, Jakarta, Indonesia

Introduction & Objectives:

The id reaction in tinea infections, is a secondary inflammatory reaction that develops in area distant from the primary infection site. This reaction is associated with hypersensitivity response to systemically absorbed fungal antigen. The majority of id reactions manifest as vesicles, papules, plaques, erythema nodosum; however they rarely can reveal as urticaria. We present 2 cases of urticaria id reaction with tinea infection which resolved after oral and topical antifungal therapy.

Materials & Methods:

Case 1 was a 20-year-old female student presented with urticaria on her face for a month. The patient was treated in local clinic with oral cetirizine twice a day for 2 weeks but no significant improvement. Physical examination on face showed multiple irregular wheal. There were also erythematous polycyclic plaques that have been neglected on her back. Potassium hydroxide (KOH) preparation were done from the scraping of all lesions, but only the lesions on her back showed fungal hyphae. She was diagnosed as tinea corporis and urticaria, treated with oral itraconazole 200 mg daily for 1 months, ketoconazole cream for the plaque, and petrolatum for the urticaria on face. Urticaria were diminished after 7 days of treatment, as the tinea lesions were healed in 21 days.

Case 2 was a 23-year-old female patient, presented with urticaria on her back of 3-week duration. She has undiagnosed polycyclic plaques with scales on her thighs. Both lesions were treated before with topical steroids and got no improvement. KOH preparations of the scales on the thigh shows hyphae but on urticaria lesion show no fungal element. Other investigation results were unremarkable. She was diagnosed as tinea cruris and treated with oral itraconazole 200mg daily for 3 weeks, oral cetirizine 10mg daily for 1 week, and topical ketoconazole for tinea lesions. Urticaria were resolved after 10 days, clearance of the infection was achieved after 2 weeks of treatment.

Results:

In both cases, urticaria were the chief complain, then thorough physical examination revealed the untreated tinea lesions. Studies have shown the relationships between urticaria and tinea infections, either it is coincidental, causal, or urticaria as an allergic reaction to antifungal drugs. Based on the criteria of id reaction, both cases show that the tinea infections caused the urticaria. *Trichophyton* is the most frequent genus observed in tinea infections, has been proposed associated with allergy. Moreover, *Trichophyton*-specific IgE is found in patients with Trichophyton infection, regardless of atopy. Some allergenic proteins from *Trichophyton* have been identified, one of them is Tri t 1 is a 30-kD, exo 1,3-beta-glucanase that causes an immediate hypersensitivity skin reaction. The treatment goal of these cases was to clear the urticaria and tinea infections. Though the tinea lesions were localized, we chose to treat them with oral antifungal, which resulted in early clearance of urticaria.

Conclusion:

In cases of urticaria without definite etiology, we recommend to do thorough physical examination to find the overlooked tinea infection.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 1030

Utility Scores in Chronic Spontaneous Urticaria: A Systematic Literature Review and Statistical Analysis

Ravneet Kohli[1], Emma Hawe[2], Sydney Harold[2], Evangelia Simou[2], Alexandros Chrysos[3], Panagiotis Orfanos*[4]

[1]Novartis Healthcare Private Limited, Hyperabad, India, [2]RTI Health Solutions, Manchester, United Kingdom, [3]Novartis Pharmaceuticals UK Limited, London, United Kingdom, [4]Novartis Pharma AG, Basel, Switzerland

Introduction & Objectives:

Chronic spontaneous urticaria (CSU) has a substantial impact on patient health-related quality of life (HRQoL). This study aims to document published utility values associated with CSU health states and derive new CSU health-state utility scores using recent randomized clinical trial (RCT) data.

Materials & Methods:

A systematic literature review (SLR) was conducted from 1 January 2013 to 31 May 2023 utilizing Embase, MEDLINE, EconLit, Cochrane Library, NHS EED, and ScHARRHUD databases. Additionally, scientific conference proceedings (e.g., EADV, EAACI) and key international health agency websites (e.g., NICE, EMA) were searched from 2021 through 2023.

Pooled EQ-5D-5L utility data from two phase III RCTs (REMIX 1 and 2; NCT05030311 and NCT05032157) were analysed using descriptive statistics, mixed models, generalized linear mixed models for sensitivity analysis, and the UK value set recommended in the latest NICE guidance. CSU health states were defined using the weekly Urticaria Activity Score (UAS7): severe (28 to 42), moderate (16 to <28), mild (<6 to <16), well-controlled (>0 to 6), and urticaria free (0). Statistical models were developed using data at follow-up (weeks 12 and 24) as the dependent variable, and covariates for baseline utility, weight, angioedema, baseline ISS weekly itch score, sex, and UAS7 category. Marginal means with 95% confidence intervals (CIs) were estimated by health state, independent of treatment arm.

Results:

A total of 554 publications were retrieved; 25 studies were included. Of these, 16 were utility studies (15 real-world evidence studies; 1 RCT) and 9 were economic evaluations.

Of the 16 primary utility studies, 14 reported mean utility values, 1 reported the convergent validity between UAS7 and utility, and 1 reported utility differences between CSU and psoriasis groups but not mean utility values. Values based on CSU severity were derived in 4 utility studies; the results suggested that utility score increases (i.e., improves) with decreased disease activity (Table 1). Four studies compared utility values for patients with CSU with those of controls; patients with CSU had lower scores. Two studies reported utility values among patients with CSU compared with other skin conditions (psoriasis, atopic dermatitis) and found lower values for CSU. Finally, 4 studies presented utility values for patients who were refractory or inadequately controlled by current CSU treatment. In addition, 5 economic evaluations reported utility estimates.

Mean utility analysis from the REMIX trials showed that patients on remibrutinib had higher utilities than placebo at both weeks 12 and 24 despite lower utility of remibrutinib at baseline vs. placebo (Figure 1). Statistical analysis of the REMIX 1 and 2 data derived mean (95% CI) utility values of 0.749 (0.727-0.770) for severe, 0.833 (0.815-0.853) for moderate, 0.866 (0.851-0.880) for mild, 0.889 (0.871-0.906) for well-controlled, and 0.928 (0.913-0.943) for urticaria-free health states. Sensitivity analysis confirmed the robustness of the results.

Conclusion:

The utility studies identified in the SLR and the statistical analysis of the REMIX trial data indicated that patients with CSU have lower utility values compared with healthy individuals, with greater CSU severity being associated with lower scores. Moreover, the mean utility analysis indicates the potential benefit of remibrutinib in improving patients' HRQoL over placebo.

Figure 1. Descriptive statistics of mean EQ-5D utility values by visit week and randomized treatment arm

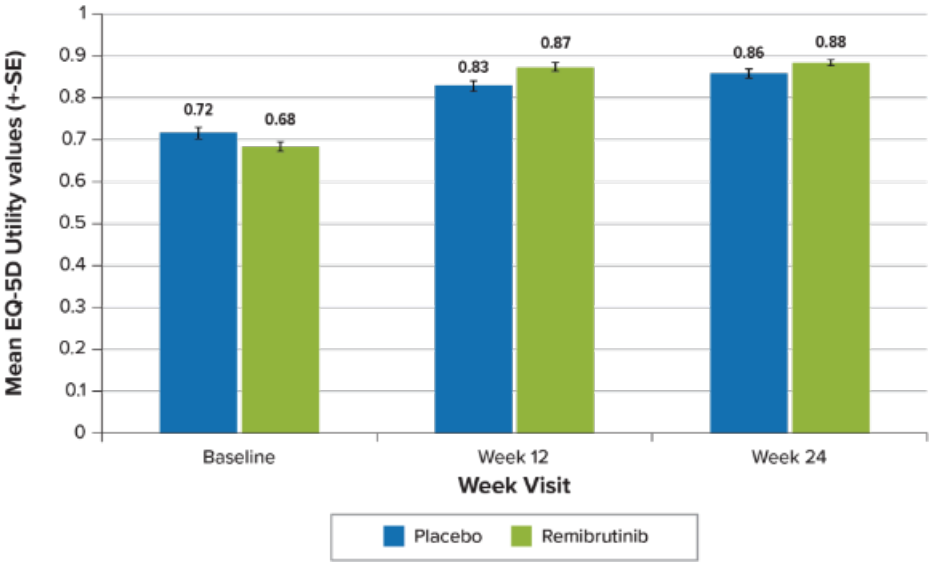


Table 1: Utility values by disease severity reported in primary utility studies identified through the SLR

Author (year) (sample size)	Country	Utility valuation	Health-state description	Utility estimate, Mean
Gupta et al. (2023) (N = 379 CSU)	Multinational (France, Germany, Italy, Spain, and the UK)	SF-6D utility scores:	Moderate/severe CSU	0.56 (0.012 SE)
			Mild CSU	0.64 (0.007 SE)
		EQ 5D utility scores:	Moderate/severe CSU	0.56 (0.029 SE)
			Mild CSU	0.75 (0.017 SE)
Hawe et al. (2016) ASTERIA I (N = 318), ASTERIA II (N = 322), and GLACIAL (N = 335 CSU)	Global	EQ-5D Utility score (UK value set)	Urticaria free (UAS7 = 0)	0.894
			Well-controlled urticaria (UAS7 = 1-6)	0.862
			Mild urticaria (UAS7 = 7-15)	0.829
			Moderate urticaria (UAS7 = 16-27)	0.78
			Severe urticaria (UAS7 = 28-42)	0.71
Lee et al. (2020) (N = 163 CU)	Korea	EQ 5D-5L Utilities (Korean value set)	Urticaria free (UAS7 = 0) (n = 41)	0.953
			Well-controlled (1-6) (n = 40)	0.913
			Mild (7-15) (n = 86)	0.878
			Moderate (16-27) (n = 176)	0.86
			Severe (28-42) (n = 73)	0.746
Ye et al. (2022) (N = 500 CSU)	Korea	EQ 5D-5L utility score	Well-controlled (≤ 6)	0.93
			Mild (7-15)	0.84
			Moderate (16-27)	0.79
			Severe (28-42)	0.73

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 1066

An open-label, investigator-initiated, single-center pilot study to determine the safety and efficacy of tofacitinib in resistant chronic spontaneous urticaria.

Abhishek De[1], Disha Chakraborty[1], Kiran Vasant Godse[2]

[1]Calcutta National Medical College, Dermatology, Kolkata, India, [2]Calcutta National Medical College, Dermatology, Kolkata

Introduction & Objectives:

Chronic spontaneous urticaria (CSU) is a distressing skin condition characterized by the recurrent appearance of itchy hives. A subset of CSU patients remains resistant to conventional treatment with high-dose antihistamines. Tofacitinib, a Janus kinase inhibitor, has shown promise in various inflammatory skin diseases. We aimed to evaluate the efficacy of oral tofacitinib in patients with CSU resistant to antihistamines.

Materials & Methods:

This study examined data of seven patients who were diagnosed with CSU and were treated with tofacitinib. These patients initially exhibited resistance to treatment with four-fold up-dosed antihistamines. One of the patients was already tried on omalizumab and another was tried on cyclosporin. The patients were administered oral tofacitinib at a dosage of 5 mg twice daily for 20 weeks. Patients were followed up monthly for disease control and side effects. The response to treatment was evaluated using the Urticaria Activity Score over 7 days (UAS7) and Urticaria Control Test (UCT). Paired t-tests were conducted to determine the statistical significance of the results using MedCalc version 11.6 software.

Results:

Six out of the seven patients demonstrated a significant improvement in both UAS7 and UCT scores after 20 weeks of treatment with oral tofacitinib. The mean UAS7 score decreased from 24.86 at baseline to 3.83 at the study endpoint ($p < 0.0001$). Similarly, the mean UCT score increased from 0.57 at baseline to 14 at the study endpoint ($p < 0.0001$). The standard deviations for both measures were 4.85 and 0.98 at baseline, and 3.1 and 3.1 at the study endpoint for UAS7 and UCT, respectively.

Conclusion:

In this study, oral tofacitinib demonstrated significant efficacy in treating CSU patients resistant to high-dose antihistamines. Most patients experienced a remarkable reduction in urticaria activity and an improvement in disease control. These findings suggest that tofacitinib holds promise as a potential therapeutic option for this challenging subset of CSU patients. However, larger, and randomized controlled trials are warranted to further investigate the long-term safety and effectiveness of tofacitinib in this population.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 1263

Global Search Interest for Urticaria: A Google Trends Analysis

Han Zhang Huang[1], Maxine Joly-Chevrier[2], Elena Netchiporouk[1]

[1]McGill University, [2]Université de Montréal

Introduction & Objectives: Chronic urticaria (CU) affects 1-3 % of people worldwide and is associated with severe itch, sleep deprivation and poor health related quality of life. In this study, we aimed to understand the geographic, temporal and seasonal patterns of CU google searches.

Our objectives include understanding temporal and geographic trends in chronic urticaria searches worldwide and elucidating whether relative search volume fluctuates based on seasons.

Materials & Methods: Google trends was searched from January 2004 to October 2023 for chronic urticaria and top related topics Relative Search Volume (RSV). Seasonality was assessed in English speaking countries with known seasonal variation such as the United States (USA), the United Kingdom (UK), Canada, Ireland, and Australia. New Zealand, Argentina and Brazil yielded no results and were thus excluded. Additive time-series decomposition was used to separate times series data into trend, seasonality and residual variation.

Results: Results show that worldwide search interest in chronic urticaria has steadily increased from 2004 to 2023 with RSV peaks observed in 2018 and 2022. Geographic variability revealed varying degrees of interest, with the Philippines, Singapore, and the United Arab Emirates showing the highest RSV. Seasonal analysis indicated a pattern of increased interest during winter and early spring, with a decrease during the summer, consistent across both northern and southern hemispheres.

Conclusion: Increased public interest in chronic urticaria may reflect increasing incidence and/or disease awareness. Observed seasonal variation (with peak RSV in winter and early spring) reflecting our clinical experience may suggest increased incidence related to infectious or environmental triggers and/or fluctuating disease severity. Better understanding of seasonal variation may shed light into potential disease triggers/exacerbating factors.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 1712

Exit interviews to understand meaningful change from the patient perspective in a clinical study for the treatment of chronic inducible cold urticaria

Ella Brookes*[1], Ufuk Coşkun[2], Christina O'donnell[2], Efstathios Zikos[3], Renata Martincova[4], Jingdong Chao[5], Lydia Braham-Chaouche[3], Mohana Giruparajah[6], Beverly Romero[7]

[1]Sanofi, Reading, United Kingdom, [2]ICON Clinical Research, Raleigh, North Carolina, United States, [3]Sanofi, Gentilly, France, [4]Sanofi, Czech Republic, [5]Regeneron Pharmaceuticals Inc., Tarrytown, New York, United States, [6]ICON Clinical Research, Burlington, Ontario, Canada, [7]Sprout Health Solutions, Germantown, Maryland, United States

Introduction & Objectives:

Chronic inducible cold urticaria (ColdU) is characterized by recurrent itchy wheals and angioedema following exposure to cold, impacting patients' quality of life. In a phase 3 randomized, double-blind, placebo-controlled, multi-center, parallel-group dupilumab study, the following Patient Reported Outcomes (PRO) measures were administered: Urticaria Control Test (UCT); Cold Urticaria Activity Score (ColdUAS); Patient Global Impression of Severity/Change (PGIS/PGIC).

Materials & Methods:

A subgroup of trial participants completed exit interviews within two weeks of treatment. Interviews assessed experience with trial medication, changes in symptoms/impacts, treatment satisfaction and thresholds for meaningful within-patient change.

Results:

Fifteen blinded, female adult participants (mean age 39.8 years) were asked to describe any changes in ColdU symptoms and related impacts, and to rate their overall satisfaction with treatment. Symptom improvement was associated with higher treatment satisfaction and willingness to continue treatment. Frequently reported signs/symptoms of ColdU included rash/redness (n=15), itch (n=15), hives/welts/wheals (n=14), swelling (n=13), burning sensation (n=12) and pain (n=9). Anchoring the discussion of meaningful change in terms of response option categories for each PRO measure enabled the identification of specific thresholds for meaningfulness of change in ColdU symptoms. The weighted average hypothetical meaningful change score for UCT was 2.06 (5-point scale), for ColdUAS was 1.72 (4-point scale), for PGIS 1.68 (4-point scale) and for PGIC 1.00 (7-point scale).

Conclusion:

Exit interviews employing concept elicitation and cognitive debriefing techniques provided important insights regarding the levels of symptom improvement considered meaningful from the patient perspective. For first time, patients distinguished between general and meaningful change in their ColdU symptom experience, emphasizing the importance of considering the qualitative aspects of improvement and offered a deep understanding of their disease and trial experience. Our findings not only confirmed the content validity of the PRO measures but also highlighted the relevance of these measures to the experiences of ColdU patients.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 1715

Patient experience of chronic inducible cold urticaria: conceptual model development complemented by clinicians and caregivers' perspectives

Ashna Alladin[1], Isabelle Guillemin[2], Chien-Chia Chuang[3], Jingdong Chao[4], Marieke Krol[5], Lydia Braham-Chaouche[6], Efstathios Zikos[6], Renata Martincova[7], Ella Brookes*[8]

[1]IQVIA Patient Centered Solutions, Munich, Germany, [2]IQVIA Patient Centered Solutions, Lyon, France, [3]Sanofi Health Economics and Value Assessment, Cambridge, MA, United States, [4]Regeneron Pharmaceuticals Inc., Tarrytown, New York, United States, [5]IQVIA Patient Centered Solutions, Netherlands, [6]Sanofi, Gentilly, France, [7]Sanofi, Czech Republic, [8]Sanofi, Reading, UK

Introduction & Objectives:

Chronic inducible cold urticaria (ColdU) manifests as recurrent itchy wheals and angioedema triggered by cold exposure, negatively affecting health-related quality of life (HRQoL). Qualitative research involving ColdU patients, clinicians or caregivers is sparse, indicating a limited understanding of patients' experience. The present qualitative study aimed to enhance comprehension of the disease and identify the key concepts important in ColdU patients' experience, via concept elicitation (CE).

Materials & Methods:

Individual CE interviews were conducted in 2022-2023 among adults, adolescents and children aged 2-11 years with ColdU (via observed caregiver reports) and with ColdU expert clinicians. The patient-facing interview materials were approved by the Institutional Review Board.

Results:

A conceptual model (CM) was constructed using CE data from 25 interviews of 8 adults, 5 adolescents, 6 children/caregiver dyads, 1 caregiver of an infant and 5 expert clinicians. The 13 adults and adolescents reported 22 symptoms/signs, of which hives and itch were reported by all, trailed by burning, swelling, and pain (reported by 11/13). In addition, 32 impact concepts were identified. All adults and adolescents cited impacts on daily activities, including hobbies (12/13), clothing preferences (11/13), followed by emotional and physical impacts (12/13 and 11/13, respectively). Children and their caregivers reported 17 symptoms/signs, with hives and itch being reported by all, succeeded by tiredness, and burning (4/7). They reported 19 impacts, with activities of daily living being mostly mentioned (7/7), followed by emotional impacts such as frustration (5/7) and physical impacts, including sports and exercise (5/7). ColdU experts elicited 9 key symptoms/signs. Hives, itch and burning were the most reported (5/5), followed by angioedema and pain (3/5).

Conclusion:

ColdU presents a complex array of symptoms, signs, and HRQoL domains. We comprehensively mapped these ColdU findings to generate the first CM, which could serve to inform future clinical trials.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 1803

Hereditary bradykinic angioedema with normal C1inhibitor VS histaminic angioedema of spontaneous recurrent chronic urticaria: a diagnostic challenge

Ihsen Chikh[1], Houria Sahel[1]

[1]University Hospital Center Lamine Debaghine, Department of dermatology, Algiers, Algeria

Introduction :

Angioedema is a clinical syndrome characterized by sudden, localized swelling of the subcutaneous and/or submucosal tissues. In terms of etiology, it may be histaminic in most cases, as part of urticaria, or bradykinic, which is rarer, with several clinical forms that may be hereditary or acquired. These two etiologies are opposed in their pathophysiology, clinical features and therapeutic management, and diagnosis is often easy, but in some cases more complicated, as in ours.

Case presentation:
A 5-and-a-half-year-old child from a non-consanguineous marriage, with a history of prematurity at 32 weeks amenorrhea, presented more than 2 years ago with left subpalpebral edema of abrupt onset, with no triggering factors, lasting 3 days and then disappearing spontaneously. Similar episodes occurred in the same place and then on the contralateral side every 3 months. In July 2023, he had 2 episodes of scrotal angioedema one month apart, and was then referred to an allergist, where he was treated with a single-dose antihistamine + anti-leukotriene + treatment of attacks with 20mg/d corticosteroids for 3 days without improvement. Since then, the episodes increased in frequency (every month). Clinical examination was without abnormalities except for slight edema of the right cheek. Biological findings: C1inhibitor dosage and functional activity were normal, C1inhibitor and esterase inhibitor antibodies were negative, C3, C4 and IgE levels were normal. Our course of action was to discontinue corticosteroid therapy, change the class of antihistamine (single-dose), plan to double the dose if no response after 1 month of treatment and eventually do a genetic test.

Discussion :

In view of the chronic, recurrent, transient context of these angioedemas with normal C1inhibitor assay, and without triggering factors, we evoke: hereditary angioedemas with normal C1inhibitor and angioedemas falling within the framework of spontaneous chronic recurrent urticaria. The latter diagnosis seems more likely to us, given its greater frequency, the absence of similar cases in the family and of laryngeal or abdominal attacks, and the sudden onset of episodes. It should be noted that in 10% of cases, deep urticaria can occur without superficial urticarial lesions, although the first diagnosis is not easily ruled out, as bradykin angioedema can occur with a de novo mutation and therefore without a family history. In view of the possible similarity between these two conditions, the diagnosis can be difficult, and is made genetically by the presence of mutations that have been identified in four genes: F12 (Hageman factor), PLG (plasminogen), KNG1 (kininogen) and ANGPT1 (angiopoietin). In the case of our patient, we recommended a therapeutic test by changing the class of antihistamine and increasing the doses if there was no response, then do a genetic test.

Conclusion :

Histamine angioedema of mast cell origin and bradykin angioedema are the two main diagnoses of angioedema, and their pathophysiology has nothing in common.

In general, the etiological diagnosis of angioedema is easy in view of the differences in clinical features, but may be more complicated in certain cases, notably when faced with strict deep urticaria without superficial urticarial lesions, and with bradykin angioedema with normal C1inhibitor.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 2243

Dupilumab Reduces Disease Activity in Patients with Chronic Spontaneous Urticaria: LIBERTY-CSU CUPID Study A

Marcus Maurer[1, 2], Ana Giménez-Arnau[3], Allen Kaplan[4], Sarbjit Saini[5], Luis Felipe Ensina[6, 7], Michihiro Hide[8], Amy Praestgaard[9], Tayler Gonzalez[9], Sonya Cyr[10], Philip Sugerman[9]

[1]Charité – Universitätsmedizin Berlin, Institute of Allergology, Berlin, Germany,[2]Fraunhofer Institute for Translational Medicine and Pharmacology , Allergology and Immunology, , Berlin, Germany, [3]Hospital del Mar Research Institute, Universitat Pompeu Fabra, Barcelona, Spain, [4]Medical University of South Carolina, Division of Pulmonary and Critical Care Medicine, Allergy and Clinical Immunology, Department of Medicine, Charleston, United States, [5]Johns Hopkins Asthma & Allergy Center, Baltimore, United States,[6]Federal University of São Paulo, Division of Allergy, Clinical Immunology and Rheumatology, Department of Pediatrics, São Paulo, Brazil, [7]CPAlpha Clinical Research Center, Barueri, Brazil, [8]Hiroshima University, Department of Dermatology, Hiroshima Citizens Hospital and Department of Dermatology, Japan, [9]Sanofi US, Bridgewater, United States, [10]Regeneron Pharmaceuticals Inc., Tarrytown, United States

Introduction & Objectives: Chronic spontaneous urticaria (CSU) is a chronic inflammatory disease characterized by wheals and/or angioedema that recur for >6 weeks. The overall goal of CSU treatment is to clear the signs and symptoms until urticaria shows spontaneous remission. Many patients with CSU fail to respond adequately to standard-of-care H1-antihistamines (H1-AH).

Materials & Methods: LIBERTY-CSU CUPID Study A (NCT04180488) was a randomized, placebo-controlled, 24-week, phase 3 trial that evaluated dupilumab efficacy and safety in patients aged ≥6 years with CSU who remained symptomatic despite H1-A1 treatment, and were omalizumab-naïve. Background therapy was study-defined H1-AH at up to 4-fold the approved dose. Endpoints included the proportion of patients with Urticaria Activity Score over 7 days (UAS7) ≤6 and UAS7 = 0 up to Week 36.

Results: In patients with CSU inadequately controlled with H1-AH, dupilumab treatment resulted in a numerically greater proportion of patients achieving well-controlled urticaria (UAS7 ≤6) from Week 8 and urticaria-free (UAS7 = 0) status from Week 14, vs placebo. At Week 24, 53.1% of dupilumab-treated patients achieved UAS7 ≤6 and 35.9% achieved UAS7 = 0 (vs 34.0% and 18.9% with placebo; $P = 0.0379$ and $P = 0.0411$, respectively). Following discontinuation of dupilumab at Week 24, the proportion of patients achieving well-controlled urticaria or urticaria-free (UAS7 ≤6 and UAS7 = 0) status remained numerically greater for dupilumab vs placebo to Week 36.

Conclusion: A numerically greater proportion of patients treated with dupilumab achieved well-controlled urticaria (UAS ≤6) or urticaria-free (UAS7 = 0) status vs placebo. Dupilumab safety was consistent with the known safety profile.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 2252

clinical spectrum, severity, and quality of life among adult patients with chronic urticaria attending regional dermatology training center- northern tanzania

Maryam McHenga Abdulla*[1]

[1]Kilimanjaro Christian Medical University College, Regional Dermatology Training Centre , Kilimanjaro, Tanzania

Introduction & Objectives: Chronic urticaria (CU) is a debilitating skin condition characterized by severe pruritus that can have devastating effects on patient's quality of life (QoL). It presents with a broad spectrum of clinical manifestations, and several subtypes of the disease can co-exist in the same patient making the diagnosis and management quite challenging. The severity of the disease can vary from one patient to another depending on several factors involved.

We conducted this study to determine the clinical spectrum, severity, and quality of life among adult patients with chronic urticaria.

Materials & Methods: A cross-sectional study was conducted from October 2022 to March 2023. Ninety-four patients with CU older than 19 years were recruited. Data were collected using a structured questionnaire and urticaria severity score (USS), and entered in SPSS version 25 for analysis. Descriptive statistics summarized data.

Results: Majority of patients (n=55, 58.5%) had a disease duration of <1 year. The median age was 39 years, females being predominant (n=70, 74.5%). Inducible and mixed urticaria were the leading types (38.3% each), with majority having more than one subtype of inducible urticaria. Many patients (n=65, 69.1%) had active lesions. 51.1% of cases reported three or more body regions affected, with a majority (n=45, 47.9%) having frequency of attacks of >5 days in a week. Angioedema was present in 25.5% of cases whereas dermographism was positive in 40.4% of cases. The majority (n=63, 67.0%) experienced sleep disturbance, with 43.6% being treated with anti-histamines only. According to USS, 36.2% had mild urticaria, whereas 63.8% had moderate to severe urticaria. Overall, USS was at 35.22 (+/-14.05).

Conclusion: Majority of patients had moderate to severe urticaria, with several types and subtypes co-existing, and sleep disturbance being the most affected aspect of QoL. The use of severity scores in clinical practice will improve the management of CU, as it will help evaluate the disease course. Also, as understanding of how CU affects patients' QoL increases, medical decisions will be coming closer to the perspectives of the patients with respect to their disease and its treatment.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 2447

Omalizumab on Chronic Spontaneous Urticaria: A Real-World Study on Effectiveness, Safety and Predictors of Treatment Outcome

Jiaoquan Chen[1], Hui Zou[1], Huaping Li[1], Quan Chen[1], Huilan Zhu[1]

[1]Guangzhou Dermatology Hospital, Dermatology, Guangzhou, China

Introduction & Objectives:

Although omalizumab has shown success in treating chronic spontaneous urticaria (CSU) patients unresponsive to antihistamines, the exact mechanism of action and predictive markers of response remain unclear. The aim of this study was to examine the correlation between baseline levels of biomarkers and clinical parameters with omalizumab response and response rate in patients with CSU.

Materials & Methods:

This retrospective cohort study investigated the effectiveness of omalizumab treatment in patients with CSU at our Hospital from January 2022 to December 2023. The eligibility criteria for patients with CSU were as follows: (1) Antihistamine resistance was defined as a lack of response to two to four times the standard dose of H1-antihistamines for a minimum of 30 days, (2) Age requirement of 12 years or older, (3) Completion of a 16-week trial of omalizumab treatment during the course of their disease to ascertain treatment response, (4) UAS7 of equal to or greater than 16 at the time of enrollment. Demographic information obtained from patient records encompassed gender, age, disease duration, as well as comorbid allergic conditions (including allergic rhinitis, asthma, atopic dermatitis, and eczema), alongside disease-specific parameters such as UAS7 (measured on a scale of 0–42) and Dermatology Life Quality Index (DLQI, measured on a scale of 0–30). Furthermore, data pertaining to biochemical assessments encompassed serum total IgE levels, Anti-IgE antibody, anti-FcεR I antibody, autologous serum skin test (ASST), C-reactive protein (CRP) levels, erythrocyte sedimentation rate (ESR), complement components (C3, C4), eosinophil and basophil counts, as well as levels of thyroid peroxidase antibody (TPOAb), thyroglobulin antibody (TGAb), D-dimer, and cytokines (including Interleukin (IL)-1β, IL-2, IL-4, IL-5, IL-6, IL-8, IL-10, IL-12, IL-17, IFN-α, IFN-γ, and TNF-α).

Results:

Of the 82 patients who completed 16 weeks of omalizumab treatment, 71.95% (59 / 82) showed a positive response (23 were early responders and 36 were late responders). The responders' group exhibited significantly lower baseline UAS7(<31), DLQI (<9.5), and IL-17 levels (< 0.775 pg/mL) compared to the non-responder group. Furthermore, patients with a poor response to omalizumab had baseline total serum IgE levels below 100 IU/mL. Notably, patients with ASST-positive CSU demonstrated resistance or delayed response to omalizumab therapy in comparison to ASST-negative patients. Late-responders were more likely to have a history of comorbid allergic diseases.

Conclusion:

This study shows that omalizumab is an effective and safe treatment option for patients with antihistamine-refractory CSU. Baseline UAS7, DLQI□IL-17 levels□total serum IgE levels□and ASST results may serve as predictive factors for assessing the response to omalizumab. Additionally, ASST and the presence of comorbid allergic diseases may be associated with the speed of response to omalizumab treatment. These findings highlight the potential value of these biomarkers and clinical parameters in predicting and monitoring the response to

omalizumab therapy in CSU patients.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 2479

Barzolvolimab Treatment Improves Quality of Life and Urticaria Control in Patients with Chronic Spontaneous Urticaria (CSU): Results from a Phase 2 Trial

Marcus Maurer*[1, 2], Iwona Kobielusz-Gembala[3], Essack Mitha[4], Jeffrey Leflein[5], Maia Gotua[6], Bartlomiej Kwiek[7], Dorota Krasowska[8], Jonny Peter[9], Neetu Talreja[10], Martin Metz[1, 2], Michael Yellin[11], Cherie Taglienti[11], Rick MA[11], Diego Alvarado[11], Elsa Paradise[11], Jonathan Bernstein[12, 13]

[1]Institute of Allergology, Charité-Universitätsmedizin Berlin, corporate member of Freie Universitäts Berlin and Humboldt-Universitäts zu Berlin, Berlin, Germany, [2]Fraunhofer Institute for Translational Medicine and Pharmacology ITMP, Immunology and Allergology, Berlin, Germany, [3]Medicome Sp. z.o.o., Oświęcim, Poland, [4]Newtown Clinical Research, Johannesburg, South Africa, [5]Respiratory Medicine Research Institute of Michigan, Ypsilanti, Michigan, United States, [6]Center of Allergy and Immunology, Tbilisi, Georgia, [7]Klinika Ambroziak Dermatologia, Lazarski University, Warsaw, Poland, [8]Department of Dermatology, Venereology and Pediatric Dermatology, Medical University of Lublin, Lublin, Poland, [9]Allergy and Immunology Unit, University of Cape Town Lung Institute, Cape Town, South Africa, [10]The Allergy Group and Treasure Valley Medical Research, Boise, Idaho, United States, [11]Celldex Therapeutics, Hampton, New Jersey, United States, [12]University of Cincinnati College of Medicine, Cincinnati, Ohio, United States, [13]Bernstein Clinical Research Center, Cincinnati, Ohio, United States

Introduction & Objectives:

Chronic Spontaneous Urticaria (CSU) is a mast cell (MC)-driven disease with a large impact on patients' Quality of Life (QoL). Barzolvolimab, an anti-KIT monoclonal antibody, is known to reduce chronic urticaria symptoms and depletes MCs in skin. In a Ph 2 study in patients with CSU refractory to antihistamines (AH) (NCT05368285), barzolvolimab demonstrated clinically meaningful, statistically significant improvement in urticaria activity score 7 (UAS7) at 12W and was well-tolerated. Here, we describe the effects of barzolvolimab on patients' QoL and urticaria control at 12W.

Materials & Methods:

This ongoing, double-blind, placebo-controlled trial randomized patients to receive barzolvolimab SC at 75mg Q4W, 150mg Q4W, 300mg Q8W or placebo during a 16W placebo-controlled treatment phase followed by 36W active treatment, and 24W follow-up. The primary endpoint is mean change from baseline (CFB) in UAS7 at 12W. Key exploratory clinical endpoints include CFB in Dermatology Life Quality Index (DLQI), proportion of patients achieving clinically meaningful scores of 0-1 in DLQI (no effect on patient's QoL) as well as CFB for Urticaria Control Test (UCT), proportion of patients with well-controlled (UCT≥12) and completely controlled (UCT=16) urticaria.

Results:

208 patients were enrolled with a mean baseline (BL) DLQI of 15.7-17.4, indicating urticaria had a very large impact on patients' QoL. The mean CFB was greatest in the 150mg Q4W and 300mg Q8W arms. The proportion of patients with DLQI scores of 0-1 was 44.9%-67.4% in patients receiving barzolvolimab compared to 10.2% on placebo.

UCT scores at BL were 3.0-3.7, indicating poorly controlled urticaria. The proportion of patients achieving UCT≥12 was 44.9%-68.1% for the barzolvolimab arms compared to 12.2% of patients in the placebo arm. UCT=16 was

achieved by 39.1% and 31.9% of patients in the 150mg Q4W and 300mg Q8W arm, respectively, compared to 6.1% on placebo.

	Barzolvolimab 75mg Q4W (N=53)	**Barzolvolimab 150mg Q4W (N=52)**	**Barzolvolimab 300mg Q8W (N=51)**	**Placebo (N=51)**
DLQI score				
Mean BL (SD)	15.9 (7.6)	15.7 (7.6)	17.4 (7.5)	17.0 (6.6)
12W Mean CFB (SD)2	-9.6 (7.2)	-13.7 (7.9)	-14.1 (8.0)	-7.1 (6.9)
0-1 at 12W (%)1	44.9	67.4	57.4	10.2
UCT score				
Mean BL (SD)	3.7 (2.8)	3.7 (2.5)	3.0 (2.6)	3.4 (2.5)
12W Mean CFB (SD)1	6.3 (4.2)	9.1 (4.0)	9.0 (4.2)	3.8 (4.5)
UCT≥12 at 12W (%)1	44.9	65.2	68.1	12.2
UCT=16 at 12W (%)2	16.3	39.1	31.9	6.1

1. Statistically significant, 5% level
2. 150 Q4W & 300 Q8W statistically significant, 5% level

Conclusion:

This barzolvolimab Ph 2 study in patients with AH-refractory CSU met its primary endpoint of improvement in UAS7 at 12W. The DLQI and UCT results indicate a greater impact on improving patient's QoL and controlling patients' urticaria with barzolvolimab compared to placebo and is consistent with the improvement of UAS7. The greatest effect was in the 150mg Q4W and 300mg Q8W doses with the majority of patients (>65%) achieving well controlled urticaria. These results combined with a favorable safety profile warrant further development of barzolvolimab in CSU.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 2489

Comparison between adult and pediatric chronic spontaneous urticaria in treatment with omalizumab within the same healthcare area: Clinical features, associated conditions, and treatment response.

Maria Sin-Soler*[1], Vicente Exposito Serrano[1], Helena Elgueta Serra[2], Helena Larramona Carrera[2], Natalia Fernandez-Chico[1]

[1]Parc Tauli Hospital Universitari , Dermatology, Sabadell, Spain,[2]Parc Tauli Hospital Universitari , Pediatrics

Introduction & Objectives:

Chronic spontaneous urticaria (CSU) is a common disease in both the adult and pediatric population. However, CSU exhibits distinct features between the two patient populations. Our aim was to compare the clinical characteristics, comorbidities, and serological biomarkers between adult and pediatric patients in our healthcare area who receive omalizumab for CSU. Despite existing guidelines, the management of CSU in pediatric population is often subsumed under recommendations of other populations. Our aim is also to determine if there are differences in terms of treatment with omalizumab: method, response, need of updosing, discontinuation, and disease relapse.

Materials & Methods:

A retrospective analysis of CSU patients undergoing treatment with omalizumab was performed. Patients were selected based on strict inclusion criteria from 2015 to 2024. Demographic, clinical, and evolutionary data were analyzed to assess differences between pediatric and adult CSU patients. Treatment response was determined by the Urticaria Control Test (UCT) and the Urticaria Activity Score 7 (UAS7).

Results:

Seventy-five CSU patients (43 adults and 32 pediatrics) were included, with female dominancy (83.7% vs. 62.5%). The rates of atopic dermatitis (4.6% vs. 31.2%) and rhinoconjunctivitis (13.9% vs. 53.1%) were significantly more frequent in pediatric patients. Other comorbidities such as angioedema (62.8% vs. 46.9%), asthma (18.6% vs. 28.1%), thyroid disease (30.2% vs. 15.6%), autoimmune disease (16.3% vs. 12.5%), and chronic inducible urticaria (32.6% vs. 21.9%) were similar in both groups. Regarding biomarkers (IgG-anti-TPO, IgG-anti-TG, total IgE levels, basopenia, eosinophil levels, and levels of CRP) and response to the standard dose of omalizumab yielded similar results between the two groups (53.5% vs. 62.5%). Adult patients experienced a significantly higher frequency of omalizumab updosing (39.5% vs. 15.6%) and longer time until treatment discontinuation (33.5 months vs. 16 months). The rate omalizumab discontinuation was significantly higher in pediatric patients (25.6%) compared to adults (62.5%), with 2 patients discontinuing due to ineffectiveness and 2 due to loss of follow-up. There were no differences on disease relapse between the groups. The comparisons between early and late responders to omalizumab were also performed in both adult and pediatric patients and yielded similar results.

Conclusion:

In our cohort, pediatric CSU shows a higher incidence of atopic dermatitis and rhinoconjunctivitis, and both groups show similar features in terms of biomarkers, findings that are consistent with the literature. Although there are no previous studies comparing the response to omalizumab between adult and pediatric CSU, we have not observed differences. However, there are fewer instances of omalizumab updosing in pediatric patients, and it is discontinued more often and earlier, with no significant differences in disease relapse. These suggest that CSU may be less severe in pediatric patients or that there is a tendency for more conservative treatment in this

population.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 2850

Stepping down of treatment in Chronic Spontaneous Urticaria- a retrospective study comparing tapering vs abrupt discontinuation and on demand treatment with antihistamines

Sukhdeep Singh*[1], Anuradha Bishnoi[1], Sendhil M Kumaran[1], Davinder Parsad[1]

[1]Post Graduate Institute of Medical Education & Research, Chandigarh, Dermatology, Chandigarh, India

Introduction & Objectives: Chronic Spontaneous Urticaria (CSU) is characterized by presence of weals, angioedema, or both for 6 weeks or more without any definite cause. The management often involves the use of second-generation antihistamines (sgAH) with aim to treat until the disease is gone with treatment which is as much as necessary and as little as possible. Stepping down treatment in CSU is an essential aspect of patient care to optimize therapy, reduce costs, and assess spontaneous remission once complete control is achieved assessed by urticaria control test (UCT). However, there is limited evidence comparing different stepping down strategies. This retrospective study aimed to compare two approaches for stepping down treatment in CSU: tapering of sgAHs and abrupt discontinuation with on-demand therapy.

Materials & Methods: A total of 30 CSU patients from a tertiary care hospital were assessed retrospectively from medical records between September 2023 to February 2024, for clinico-demographic parameters including baseline disease activity(UCT). The inclusion criteria was patients with CSU asymptomatic during last 3 months with regular treatment of sgAHs. Patients with chronic inducible urticaria (CIndU) and those who received omalizumab or cyclosporine were excluded. Patients were divided into two groups: Group 1 (sdown-CSU) underwent a gradual tapering of sgAHs, while Group 2 (aCSU) had their sgAH treatment abruptly discontinued with on-demand therapy. We took 3 months followup because complete data was available for that period. The data was analysed in SPSS version 29.0 software with P value <0.05 as significant based on confidence interval of 95%.

Results: Both groups had comparable demographic and pre-treatment characteristics. The disease activity assessed by mean(SD) UCT at baseline was 10.6(3.5) in group 1 vs 10.6(2.8) in group 2. Once UCT of 16 was achieved on standard sgAH dose for 3 months, treatment modification was performed into 2 groups. At 30 days post active treatment, the mean(SD) of UCT1 was 15.2(1.14) in group 1 vs 14.0(1.33) in group 2 (**p=0.019**). At 60 days, mean(SD) of UCT2 was higher in group 1 (15.8(0.5)) than group 2(14.8(1.08)) (**p=0.002**). However at 90 days, the difference in mean(SD) of UCT3 between group1 (15.9(0.25)) and group 2(15.6(0.72)) was deemed insignificant(p=0.196) (Figure 1) . At the end of 90 days, the patients released from treatment included 14/15 in group 1 vs 11/15 in group 2 (p=0.330), with comparable outcomes. Relapses were observed in patients with higher baseline disease activity, lower serum IgE levels, and higher CRP levels.

Conclusion: Effective step-down strategies help save on drug use and optimise the treatment.Our study suggests that both tapering and abrupt discontinuation are effective strategies for stepping down sgAH treatment in CSU patients (Figure 2). However, tapering offers better initial control of urticaria symptoms, while abrupt discontinuation is more suitable for resource-poor settings. Shared decision-making between patients and physicians is crucial in selecting the appropriate strategy based on patient preferences. Further prospective studies are needed to validate these findings in a larger sample size and develop comprehensive guidelines for stepping down.

Figure 1- Comparison of UCT (Orange panel- group 1- tapering of antihistamines) (Blue panel- group 2- antihistamines abruptly stopped)

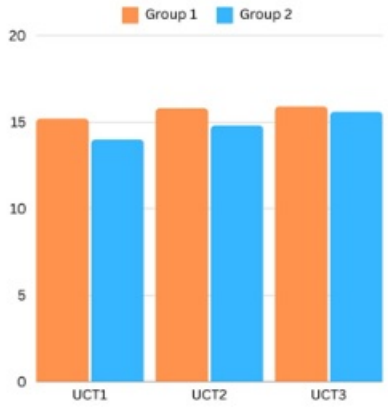
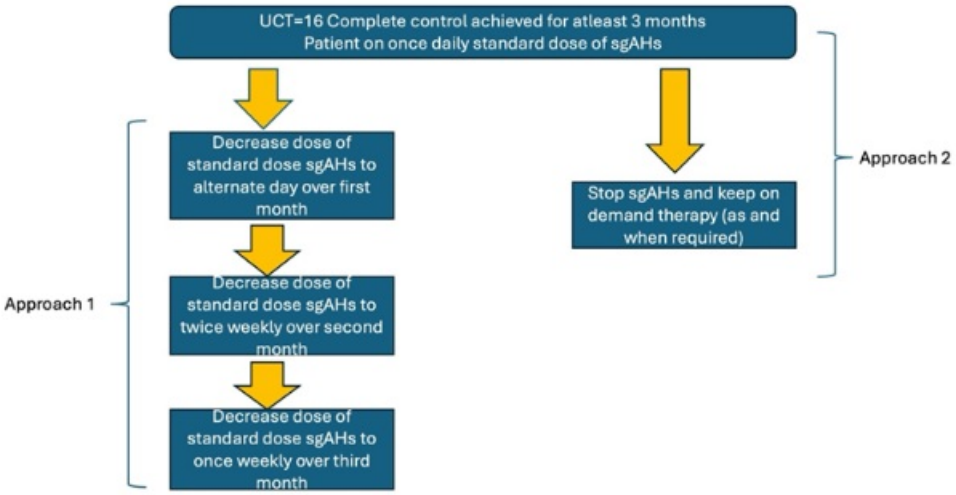


Figure 2-Stepping down approaches proposed for patients of CSU.



EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 2861

Decoding the Clinical and Laboratory Profiles of Chronic Inducible Urticaria and Chronic Spontaneous Urticaria

Sukhdeep Singh*[1], Sendhil M Kumaran[1], Davinder Parsad[1]

[1]Post Graduate Institute of Medical Education & Research, Chandigarh, Dermatology, Chandigarh, India

Introduction & Objectives:

Chronic inducible urticaria (CIndU) is characterized by wheals and/or angioedema for longer than 6 weeks induced by specific triggers. The data regarding epidemiology of CIndU is scarce with limited literature on urticaria severity, investigations, and treatment responses in CIndU compared to CSU. In this study, we aimed to compare various parameters between CIndU and CSU patients. We also assessed correlation between different parameters and urticaria severity in CIndU patients.

Materials & Methods:

We performed a retrospective chart review of all CIndU patients(cases) enrolled in our Urticaria clinic, an Urticaria reference and excellence centre (UCARE) past seven years between January 2017 to December 2023. Equal number of CSU patients enrolled during study period were taken as controls. Complete clinicodemographic data regarding the disease duration and treatment response were noted. Urticaria severity was assessed by Urticaria activity score over 7 days (UAS7). Statistical analyses were performed using SPSS V29 with $P < 0.05$ as significant.

Results:

Out of all records screened, 222 CIndU (cases) and 226 CSU (controls) we eligible based on complete availability of data. Both groups were comparable in terms of age and gender with slight female preponderance. Mean UAS7 at baseline was comparable(p=0.619) between two groups [(11.49±10.37 in CIndU vs 10.9±12.2 in CSU)]. The mean CRP (mg/dl) levels for CIndU vs CSU patients was 2.8±4.2 vs 6.9 ± 11.2 (**p<0.001**). Serum D-dimer levels (mg/dl) were also significant between cases(167±220) and controls(265±452) (**p=0.020**). The quality of life assessed by CU-QOL score was 9.39±9.5 in CIndU vs 16±14.8 in CSU (**p<0.001**). Eighty percent of CIndU patients and 52% of CSU patients required updosing of antihistamines upto 4 times and the difference was statistically significant between two groups(**p=<0.001**). The mean time taken to achieve remission i.e. UAS7=0 (T0) was 60±42 days amongst CIndU while it was shorter in CSU (27.77±27 days) (**p<0.001**).Amongst all CIndU cases, commonest subtypes were symptomatic dermographism (SD) (39.5%) followed by cholinergic urticaria(4.2%) and cold urticaria(1.8%)(Figure 1). Overall, in CIndU patients, a moderate correlation was observed between urticaria severity and dose of antihistamines to achieve UAS7 of zero(Pearson correlation PC=0.366,**p<0.001**), time taken to achieve UAS7=0 (PC=0.414, **p<0.001**),and frequency of updosing of antihistamines(PC=0.448,**p<0.001**). A strong positive correlation was observed between UAS7 and serum IgE ((PC)=0.576, **p=0.05**); UAS7 and CRP(PC=0.763, **p=0.002**) in patients of cholinergic urticaria (Figures 2A and 2B).

Conclusion:

Our study underscores the distinct clinical and laboratory profiles between CIndU and CSU patients. CIndU patients exhibit poorer response to standard antihistamine doses, requiring more frequent updosing and longer treatment duration. Additionally, significant differences were observed in CRP and D-dimer levels between two groups. The time to attain remission as assessed by UAS7 score was also longer in CIndU patients than CSU (mean difference of 33 days). Understanding these differences is crucial for optimizing management strategies tailored

to the unique needs of CIndU patients. Further research is warranted to elucidate the underlying mechanisms and explore targeted treatment approaches for CIndU.

Figure 1- Common subtypes of CIndU observed in the study

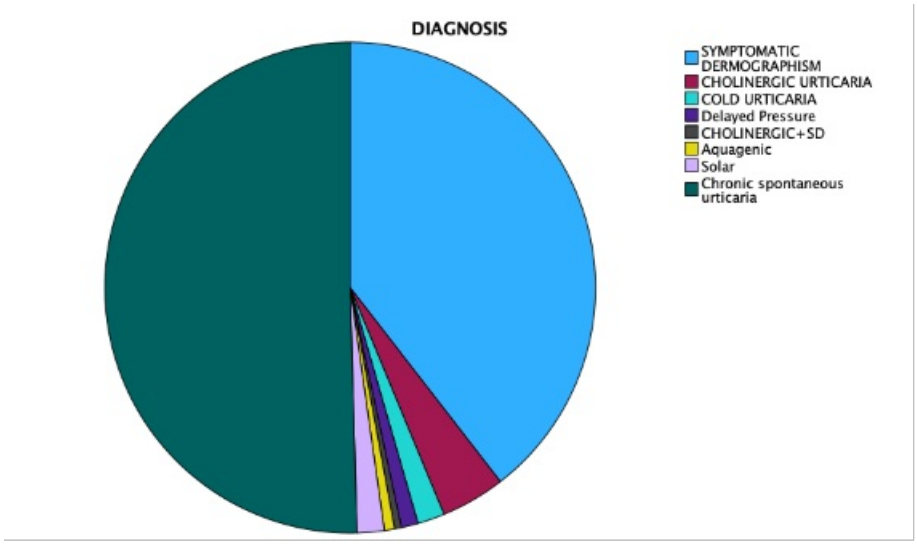


Figure 2A

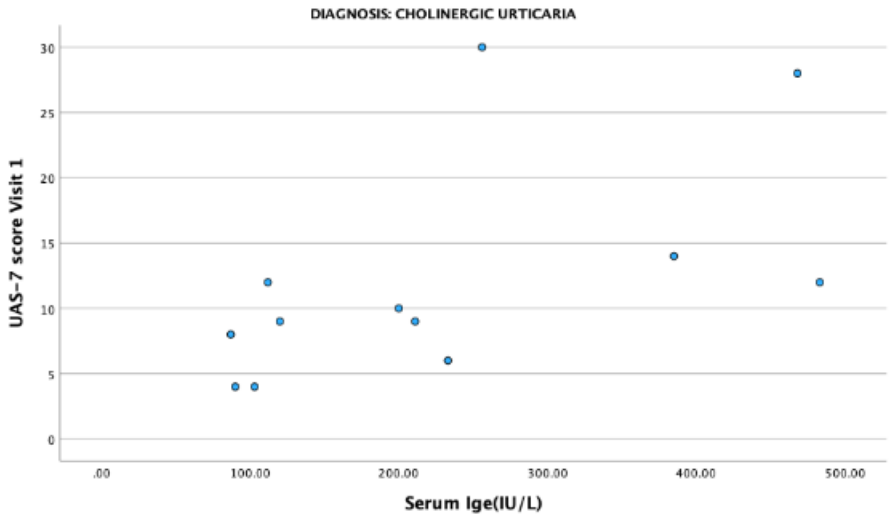
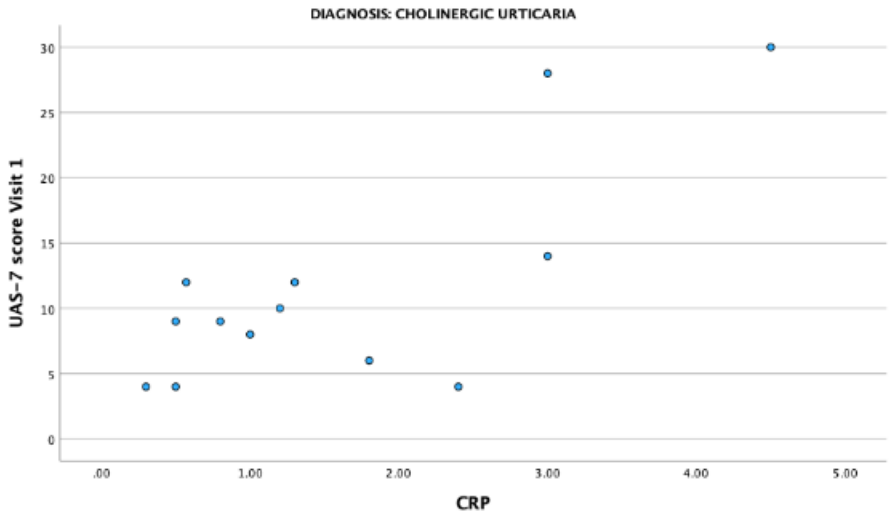


Figure 2B



EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 2873

Relevance of the basophil activation test in a cohort of 240 patients with chronic spontaneous urticaria

David Pesqué*[1], Evelyn Andrades[1], Paloma Torres-Bosó[1], Dulce Soto[2], Ramon Gimeno[2], Ramon Maria Pujol[1], Jose Yelamos[2], Ana Giménez-Arnau[1]

[1]Hospital del Mar, Dermatology, Barcelona, Spain, [2]Hospital del Mar, Immunology, Barcelona, Spain

Introduction & Objectives: Basophil activation test (BAT) is considered to be the best biomarker to predict autoimmune chronic spontaneous urticaria (aiCSU). To date, few studies have investigated the utility of BAT in real-life clinical practice, as well as clinical biomarkers associated with BAT positivity, and the role of aiCSU biomarkers in relation to omalizumab therapy. The aim of this study is to analyze the clinical features of a prospective cohort with CSU according to their BAT status and evaluate factors associated with positivity, as well as to study omalizumab responsiveness depending on aiCSU biomarkers.

Materials & Methods: A prospective study was conducted from 2010 to 2024 in patients with CSU. BAT and baseline other laboratory tests (total IgE, autologous serum skin test (ASST), IgG anti-TPO, basophil FcεRI, as well as complete cell blood count) were performed, and clinical and therapeutic features were prospectively collected. Data obtained was compared according to BAT status with descriptive statistics and logistic multivariate regression was used to study variables associated to BAT. Furthermore, omalizumab drug survival was typified according to aiCSU biomarkers with Mantel-Haenszel (log-rank) test.

Results: A total of 240 patients were included in the study. Patient with BAT positivity significantly associated lower IgE ($p=0.022$), lower high-affinity receptor of IgE levels ($p=0.002$), and more frequent autoimmune comorbidity ($p<0.01$), thyroid peroxidase positivity ($p<0.001$), ASST positivity ($p<0.001$), basopenia ($p=0.006$), and eosinopenia ($p<0.001$). The multivariate logistic regression revealed that ASST (OR:7.69, 95%CI: 2.81-21.0) and TPO (OR:2.63, 95%CI: 1.05-6.61) were associated to an increased risk of BAT positivity in clinical practice. BAT positive patients presented higher omalizumab failure ($p=0.006$) and less clinical remission with the drug ($p=0.023$). All aiCSU biomarkers, including BAT ($p=0.03$), ASST ($p=0.01$) and low IgE/TPO+ ($p<0.001$), associated significantly shorter omalizumab survival in the Kaplan-Meier curves.

Conclusion: The use of BAT in real-life clinical practice may help clinicians to delineate a subgroup of patients with specific clinical, laboratory and therapeutic features. aiCSU markers were associated to shorter omalizumab survival in the cohort due to drug failure.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 2954

Total Immunoglobuline E levels in patients with Chronic Spontaneous Urticaria

Vesna Trajkova[1], Natasha Teovska-Mitrevska[2], Hristina Breshkovska[3], Irena Dimitrovska[1]

[1]City General Hospital "8th September", Skopje, Dermatology Department, Skopje, North Macedonia,[2]General Hospital "ReMedika". Skopje, Dermatology Department, Skopje, North Macedonia, [3]University Clinic of Dermatology, Skopje, Dermatology Department, Skopje, North Macedonia

Total Immunoglobuline E levels in patients with Chronic Spontaneous Urticaria

Trajkova Vesna [1], Natasha Teovska Mitrevska [2], Hristina Breshkovska [3], Irena Dimitrovska [1]

[1] Department of Dermatology, City General Hospital " 8mi Septemvri" Skopje, North Macedonia

[2] Department of Dermatology, ReMedica General Hospital, Skopje, North Macedonia

[3] University Clinic of Dermatology, Skopje, North Macedonia

Introduction & Objectives: Immunoglobuline E (IgE) is a key mediator to activate mast cell, contributing to the pathogenesis of CSU. Recent findings point to a possible role of total IgE as a marker of CSU disease activity, endotypes (type I autoallergic and type II autoimmune), and responses to treatment. The objective of this study is to find correlation between total serum levels of IgE and autoimmunity, ASST, disease activity and response to H1-antihistamines in CSU patients.

Materials & Methods: We conducted a perspective study in Dermatology Department in City General Hospital "8th September", Skopje North Macedonia, from December 2021 to November 2022. This study included 230 CSU patients 18-70 years old and a control group (CG) of 130 healthy individuals. Total IgE serum levels and AAbs (included IgG against Tg and TPO, anti-nuclear antibodies (ANA) and rheumatoid factor (RF)) were measured in patients blood serum. Weekly Urticaria Activity Score (UAS7) was used to assess both disease activity (evaluating CSU symptoms for seven consecutive days) and response to H1-antihistamines (evaluating over several months H1-antihistamines response). Presence of autoimmune status was inferred in the case of a personal history of concomitant autoimmune disease or in the presence of at least one type of AAbs. ASST was performed by the intradermal injection of the patient's own serum into the volar part of the forearm. Patients were classified as either having a positive or a negative ASST.

Results: CSU patients had elevated total IgE serum levels compared to control group (38.7%,), but normal to low total IgE levels occurred. CSU patients with positive autoimmune status and positive ASST had significant lower total IgE serum levels then CSU patients with negative autoimmune status and negative ASST accordingly ($p<0.0001$). The comparison of groups of patients with different CSU disease activity, regarding the frequency of increased total IgE serum levels, confirmed a significant difference between the groups with high disease activity versus the group with mild disease activity (28.09% vs 55.32%, $p=0.0018$), and versus the group with well-controlled disease (28.09% vs 50%, $p=0.049$). CSU patients with H1- antihistamine response compared to patients with H1- antihistamine resistance did not differ significantly in total IgE serum levels (median=77 IU/ml and 75 IU/ml, respectively; $p=0.63$).

Conclusion: By assessing total serum IgE in patients with CSU, health care providers can make informed decisions and treatment plans to maximize therapeutic outcomes. However, the role of total IgE in CSU is not well evaluated. The results of our study suggest that total IgE is a valuable marker for CSU considering disease activity,

autoimmunity, disease activity and response to H1- antihistamines in CSU patients.

Keywords: Chronic spontaneous urticaria; immunoglobulin E; ASST, autoimunity

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 3298

Leveraging machine learning to develop a prognostic model for chronic spontaneous urticaria

Ana Giménez-Arnau*[1], Romi Saini[2], Jordan Talia[3], Jessica Gereige[4], Flavio Dormont[4], Leda Mannent[5]

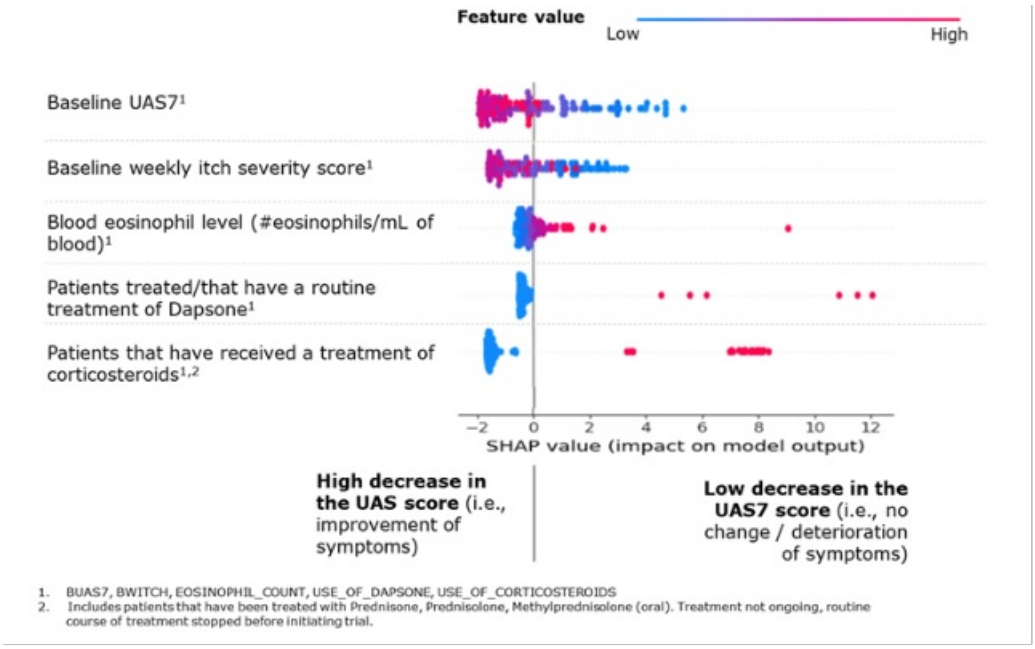
[1]Hospital del Mar, Barcelona, Spain, [2]Johns Hopkins Asthma & Allergy Center, Baltimore, United States, [3]The Mount Sinai Hospital, New York, United States, [4]Sanofi, Cambridge, United States, [5]Sanofi, Paris, France

Introduction & Objectives: Chronic spontaneous urticaria (CSU) is a common immunologic skin disease characterised by episodes of pruritic wheals and/or angioedema lasting >6 weeks. The disease progression of CSU varies among patients; therefore, identifying patient characteristics may help define prognostic factors and predict disease progression. Here, leveraging artificial intelligence tools, a prognostic model for patients with CSU that predicts disease progression was developed.

Materials & Methods: All features available from placebo-treated patients in the ASTERIA I (NCT01287117) and GLACIAL (NCT01264939) trials, sourced from TransCelerate, were analysed. Common features of clinical and statistical relevance to the clinical endpoint of change in weekly Urticaria Activity Score (UAS7, measuring itch and hives) were prioritised and used to train five different machine-learning modelling approaches. Model performance was assessed with the cross-validation approach Leave-One-Out to avoid overfitting. The best model selected was that which demonstrated the best performance as measured by mean absolute error of predicted to actual progression of UAS7 over 12 weeks, whilst bearing the highest confidence in capacity to rank patients between one another based on their natural progression as measured by Spearman rank correlation.

Results: Thirty-nine baseline demographic and clinical features common amongst placebo-treated patients from previous randomised clinical trials were selected based on clinical relevance. Each of these features was used to train the five different machine-learning models, which included Support Vector Regression, Ridge, LASSO, Decision Tree, and Random Forest. The Support Vector Regression model demonstrated the best performance (mean absolute error of 8.82; Spearman correlation of 0.39) in predicting the progression of UAS7 over 12 weeks. In addition, several patient features were associated with limited progression of CSU (i.e., improvements in UAS7), such as low baseline UAS7 or weekly Itch Severity Score, high blood eosinophil levels, and previous treatment with oral corticosteroids (Figure 1).

Conclusion: Using machine learning, a prognostic model that identified patient features linked to disease progression of CSU was developed. This model can aid in predicting disease progression in patients.



1. BUAS7, BWITCH, EOSINOPHIL_COUNT, USE_OF_DAPSONE, USE_OF_CORTICOSTEROIDS
2. Includes patients that have been treated with Prednisone, Prednisolone, Methylprednisolone (oral). Treatment not ongoing, routine course of treatment stopped before initiating trial.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 3441

Yellow Urticaria

Thomas Akel Oberpaur*[1], Ana Gamero Rodríguez[1], Iván Rodrígo Díaz[1], Tania Marusia Capusan[1], Javier Alcántara González[1], Marta Ruano del Salado[1], Arantxa Muñiz de Lucas[1], Mirko Rödig[1], Raquel Cabana Navia[1], Elena Sánchez-Largo[1]

[1]Hospital Universitario de Torrejón, Dermatology, Madrid, Spain

Introduction: Yellow urticaria is a rare phenomenon resulting from the co-occurrence of hives and hyperbilirubinemia. We present a case where this sign prompted the timely detection of hepatic failure and review the related literature.

Case Report: We report the case of a 36-year-old previously healthy woman who presented to the emergency department with generalized pruritic, intense yellow hives on normochromic skin, following three days of mild catarrhal symptoms and fever. Sclerae seemed slightly yellow, but the patient and family denied any changes. During interrogation the patient referred intermittent dark urine and past medical consultations reported mild transaminase elevations one month prior, which had not been investigated. Given the reported symptoms and questionable scleral icterus, analyses were conducted that confirmed direct hyperbilirubinemia and transaminitis, leading to her hospitalization. Despite resolution of the urticaria within 24 hours, the patient developed progressive acute hepatic failure, encephalopathy, and renal failure, necessitating supportive care in the intensive care unit. Extensive investigations ruled out obstructive, toxicological, infectious, autoimmune, and neoplastic causes, leaving the etiology of the condition uncertain. The patient had a favorable outcome, with complete spontaneous recovery and no recurrence of urticaria or hepatic failure. Follow-up studies have not shown abnormalities other than steatosis.

Discussion: Yellow urticaria is a phenomenon first described in 1969 that occurs when hives and hyperbilirubinemia co-exist due to various causes. There are at least 25 published cases, and there is insufficient evidence to suggest a causal relationship between the levels of hyperbilirubinemia or the underlying pathology and the formation of urticaria. The hives exhibit increased capillary permeability, which facilitates the localized deposition of bilirubin in the dermis, where it has an affinity for elastin, as is typically observed in the sclerae. In our case, we consider the yellow urticaria to be a coincidental occurrence of self-limiting acute urticaria following a viral acute upper respiratory infection, within a context of progressive hepatic failure of unclear origin.

Conclusion: Although it is an infrequent occurrence, it is noteworthy to recognize this sign, which in all reported cases has occurred in the context of hyperbilirubinemia in potentially serious underlying pathologies.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 3700

Gender-specific Differences in Therapeutic Response to Omalizumab in Patients with Chronic Spontaneous Urticaria

Milena Lisiecki*[1], Alexander Zink[1, 2], Sarah Preis[1]

[1]Technical University of Munich, School of Medicine and Health, Department of Dermatology and Allergy, Munich, Germany, [2]Karolinska Institutet, Department of Medicine, Solna, Division of Dermatology and Venereology , Stockholm, Sweden

Introduction & Objectives:

Chronic spontaneous urticaria (CSU) is a dermatological disease characterised by recurrent episodes of hives and/or angioedema lasting for more than six weeks and causing great distress to the patient. CSU is one of the dermatological diseases with a significant female predominance, having a female to male ratio of approximately 2:1.

Omalizumab, a monoclonal antibody targeting IgE, is a treatment option for patients with CSU who do not respond adequately to antihistamines. The aim of this study was to evaluate the association between gender and urticaria, particularly focused on comorbidities and longterm-medication, concomitant allergies, symptom severity, as well as gender differences in response to omalizumab.

Materials & Methods: This retrospective analysis of data and laboratory values, such as total IgE, leukocytes, basophils and eosinophils, from a total of 250 patients with CSU, included 150 women and 100 men. All patients were recruited from the dermatology department of one german hospital and had to be treated there because of their CSU. Of these patients, 210 were treated with omalizumab. The Urticaria Control Test (UCT) was analysed before the start of omalizumab therapy, before the second injection in our clinic, after 6 months and after one year to evaluate the response to omalizumab therapy.

Results: Of the 150 women and 100 men included, hives occurred in 147 women (98%) and 97 men (97%), angioedema in 105 women (70%) and 58 men (58%). The most frequently observed comorbidity was asthma with 43 affected patients, whereby women were significantly more frequently affected than men (22% of all women vs. 10% of all men) ($p=0.014$). Furthermore, a significantly higher proportion of women were affected by autoimmune thyroid disease ($p=0.010$) and atopic eczema ($p=0.007$). When analysing the laboratory values, it was found that women had a higher average baseline total IgE than men ($p=0.006$). No significant differences were found between men and women in the change of the UCT over one year during omalizumab therapy. This suggests that the treatment response to omalizumab may not be influenced by the patient's gender.

Conclusion: Based on the present results of this study, it can be concluded that the pathogenesis of CSU could differ in men and women, but this does not appear to have any influence on the response to therapy with omalizumab.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 3772

Chronic Urticaria Affects Major Life Changing Decisions About Career and Relationships When It Starts at A Younger Age

Sinem Ayşe Örnek*[1], Kubra Kiziltac[2], Rabia Oztas Kara[3], Muhammed Burak Yucel[4], Esra Sarac[5], Defne Baskurt[5], Pelin Kuteyla Can[6], Bahar Sevimli Dikicier[3], Ragip Ertas[4], Andac Salman[7], Murat Türk[8, 9], Utkan Kiziltac[2], Faraz Mahmood Ali[10], Sam Salek[11, 12], Andrew Y Finlay[10], Emek Kocatürk[5, 13, 14]

[1]Health Sciences University Diskapi Yildirim Beyazit Training and Research Hospital, Dermatology, Ankara, Türkiye, [2]Private Practice, Dermatology, Istanbul, Türkiye, [3]Sakarya University Faculty of Medicine, Dermatology, Sakarya, Türkiye, [4]Kayseri City Education and Research Hospital, Dermatology, Kayseri, Türkiye, [5]Koc University School of Medicine, Dermatology, Istanbul, Türkiye, [6]Bahcesehir University Faculty of Medicine, Dermatology, Istanbul, Türkiye, [7]Acibadem Mehmet Ali Aydinlar University School of Medicine, Dermatology, Istanbul, Türkiye,[8]Kayseri City Hospital, Immunologic and Allergic Diseases, Kayseri, Türkiye, [9]Erciyes University School of Medicine, Allergy and Clinical Immunology, Kayseri, Türkiye, [10]Cardiff University School of Medicine, Infection and Immunity, Cardiff, United Kingdom, [11]University of Hertfordshire, School of Life and Medical Sciences, Hatfield, United Kingdom, [12]Institute of Medicines Development, Cardiff, United Kingdom,[13]Charité – Universitätsmedizin Berlin, corporate member of Freie Universität Berlin and Humboldt-Universität zu Berlin, Institute of Allergology, Berlin, Germany, [14]Fraunhofer Institute for Translational Medicine and Pharmacology ITMP, Allergology and Immunology, Berlin, Germany

Introduction & Objectives: Chronic urticaria (CU) affects various aspects of patients' quality of life, however there is a limited understanding of its impact on major life decisions. The Major Life-Changing Decisions Profile (MLDCP) is a new tool to assess life-changing decisions influenced by chronic diseases. We aim to investigate the validity and reliability of the Turkish MLCDP version and to explore the influence of CU on major life-changing decisions and disease-specific characteristics associated with it.

Materials & Methods: After forward and backward translation and cognitive debriefing, we administered the Turkish MLCDP version to 111 CU patients recruited from four Urticaria Centers for Reference and Excellence in Turkey. We also investigated various patient characteristics along with the outcomes of several patient-reported outcome measurements (PROMs). Statistical analyses were employed to assess the validity and reliability of the Turkish MLCDP version, as well as its correlation with certain PROMs.

Results: The MLCDP demonstrated excellent internal consistency in CU (Cronbach's α 0.909). The majority of patients (79.3%) experienced the impact of CU on at least one life-changing decision, with the most affected domains being social (69.4%), physical (56.8%) and job/career (36.9%). The total MLCDP score exhibited a significant decrease with an increasing age of disease onset ($R=-0.249$, $p=0.01$). Patients with severe disease showed a more pronounced impact on MLCDP ($p<0.05$). The job/career, family/relationships, and physical domain scores were significantly higher in patients with disease onset age ≤45 compared to those with disease onset age >45 ($p=0.004$; $p=0.028$, $p=0.029$, respectively).

Conclusion: MLCDP provides insightful perspectives on the enduring consequences of CU, underscoring its significant impact on major life decisions, particularly in social, physical, and career aspects of life, with a notable emphasis on younger patients. While severe disease emerges as a pivotal factor influencing life-changing decision, effective early treatment is crucial to mitigate the disease's impact on life trajectories.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 3901

Time on and determinants of effectiveness of high dose omalizumab in chronic urticaria patients

Reineke Soegiharto[1], Juliette Simons[1], André Knulst[1], Juul Van den Reek[2], Heike Röckmann[1]

[1]University Medical Center Utrecht, Dermatology/Allergology, Netherlands,[2]Radboud University Medical Center, Dermatology, Netherlands

Introduction & Objectives:

Omalizumab up-dosing up to 600mg/2w is recommended in chronic urticaria (CU) patients with insufficient response to standard dose (SD). Small studies demonstrated the effectiveness of high dose (HD) treatment. Long-term data about the performance of HD omalizumab in daily practice is lacking. Therefore, the objective of this study is to investigate time on HD omalizumab, reasons for HD discontinuation and potential predictors of HD effectiveness in CU patients with insufficient response to SD.

Materials & Methods:

All CU patients with at least one HD omalizumab administration (>300mg/4w) were retrospectively included until September 2022. Time on HD omalizumab was investigated by survival analysis (event=discontinuation of HD). Reasons for HD discontinuation were assessed and potential predictors of HD effectiveness were analyzed by Cox regression analyses.

Results:

106 patients (mean age 39.2 years; 76% female) received HD omalizumab, leading to response in 60 patients (57%). At the end of follow-up, 16 patients (15%) continuously received and 88 patients (83.0%) discontinued HD omalizumab. The 1-, 2- and 5-year overall HD omalizumab survival rate was 44%, 19%, 10% respectively (median time on HD 8 months); mostly determined by well-controlled disease (n=43, 49%) and ineffectiveness (n=35, 40%). The median time on HD omalizumab associated with well-controlled disease was 19 months, while the HD discontinuation rate due to ineffectiveness was highest in the first 6 months of HD treatment. Twelve patients (14%) discontinued HD due to side effects. Initial partial improvement of disease activity within 3 months of SD omalizumab was associated with a higher chance of HD omalizumab effectiveness.

Conclusion:

This large daily practice study of CU patients with HD omalizumab and long observation period confirmed the success of HD treatment in a substantial part of patients with prior failure on SD. Initial partial improvement to SD omalizumab may be a relevant factor to select patients that are likely to benefit from omalizumab up-dosing.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 4222

Decade-Long Urticaria: Profiling Patients with Longstanding Symptoms in a Large Multinational Cohort

Adil Ozcanli*[1], Pascale Salameh[2, 3, 4, 5, 6, 7], Esra Saraç[1], Carolina E. Vera Ayala[2, 3], Simon Francis Thomsen[8], Torsten Zuberbier[2, 3], Luis Felipe Ensina[9], Todor A. Popov[10], Martijn B.A. van Doorn[11, 12], Ana Maria Giménez-Arnau[13], Riccardo Asero[14], Paulo Ricardo Criado[15], Fernando M. Aarestrup[16], Zainab Abdulhameed Ansari[17], Salma Al Abri[17], Mona Al-Ahmad[18], Bushra Al Hinai[17], Anastasiia Allenova[19, 20], Maryam Al-Nesf[21], Sabine Altrichter[2, 3, 22], Rand Arnaout[23], Joanna Bartosińska[24], Andrea Bauer[25], Jonathan A. Bernstein[26], Mojca Bizjak[27], Hanna Bonnekoh[2, 3], Laurence Bouillet[28], Zenon Brzoza[29], Ana Caroline Calvalcanti Dela Bianca Melo[30], Fernanda L. Campinhos[31], Emily Carne[32], Saleema Cherichi Purayil[21], Ivan Cherrez-Ojeda[33, 34], Herberto Jose Chong-Neto[35], George Christoff[36], Niall Conlon[37], Roberta Fachini Jardim Criado[15], Klara Cvenkel[38], Ebru Damadoglu[39], Inna Danilycheva[40], Cascia Day[41], Laurence de Montjoye[42], Semra Demir[43], Silvia Mariel Ferucci[44], Daria Fomina[45, 46, 47], Atsushi Fukunaga[48], Elizabeth Garcia[49], Asli Gelincik[50], Joe Hannah Göbel[2, 3], Kiran Godse[51], Margarida Gonçalo[52], Maia Gotua[53], Clive Grattan[54], Agata Gugala[55], Carole Guillet[56], Ali Fuat Kalyoncu[39], Gul Karakaya[39], Alicja Kasperska-Zając[57], Constance H. Katelaris[58], Maryam Khoshkhui[59], Andreas Kleinheinz[60], Marta Kolacinska-Flont[61], Pavel Kolkhir[2, 3], Mitja Košnik[27], Dorota Krasowska[24], Muthu Sendhil Kumaran[62], Izabela Kuprys-Lipinska[61], Marcin Kurowski[55], Elizaveta V. Kuznetsova[46], Désirée Larenas-Linnemann[63], Marina S. Lebedkina[45], Youngsoo Lee[64], Michael Makris[65], René Maximiliano Gómez[66], Iman Nasr[17], Sophia Neisinger[2, 3], Yoshiko Oda[67], Rabia Öztaş Kara[68], Esther Bastos Palitot[69, 70], Niki Papapostolou[65], Claudio Alberto Salvador Parisi[71], David Pesque[13], Jonathan Peter[41], Elena Petkova[72], Katie Ridge[37], Michael Rudenko[73], Krzysztof Rutkowski[74], Sarbjit S. Saini[75], Andac Salman[76, 77], Jorge Sanchez[78], Bülent Şekerel[79], Sofia A. Serdotetskova[45], Faradiba S. Serpa[31], Bahar Sevimli Dikicier[68], Nikitas Sidiropoulos[65], Agnieszka Sikora[57], Jennifer Astrup Sørensen[8], Angele Soria[80], Ozlem Su Kucuk[81], Sherin Rahim Thalappil[21], Katarzyna Tomaszewska[82], Gulseren Tuncay[39], Derya Unal[50], Solange Valle[83], Esmee van Lindonk[11], Christian Vestergaard[84], Raisa Meshkova[85], Aleksandr Vitchuk[85], Paraskevi Xepapadaki[86], Young-Min Ye[64], Anna Zalewska-Janowska[82], Mateusz Zamlynski[57], Marcus Maurer[2, 3], Emek Kocaturk[1, 2, 3]

[1]Koç University Hospital, Dermatology, Istanbul, Türkiye, [2]Charité – Universitätsmedizin Berlin, Berlin, Germany, [3]Fraunhofer Institute, Translational Medicine and Pharmacology, Frankfurt, Germany, [4]Institut National de Santé Publique, Clinical epidemiology, Beirut, Lebanon, [5]University of Nicosia, Primary Care and Population Health, Nicosia, Cyprus, [6]Lebanese American University, School of Medicine , Beirut, Lebanon, [7]Faculty of Pharmacy - Lebanese University, Lebanon, [8]Copenhagen University, Department of Biomedical Sciences, Bispebjerg Hospital, Department of Dermatology, København, Denmark, [9]Federal University of São Paulo, Dermatology, Brazil, [10]Sv. Ivan Rilski, Allergology, Bulgaria, [11]Erasmus MC, Dermatology, Rotterdam, Netherlands, [12]Centre for Human Drug Research (CHDR), Leiden, Netherlands, [13]Pompeu Fabra University, Dermatology, Barcelona, Spain, [14]Clinica San Carlo - Casa di Cura Polispecialistica, Allergology, Paderno Dugnano, Italy, [15]Centro Universitário Faculdade de Medicina do ABC (FMABC), Allergoskin Allergia e Dermatologia, Brazil, [16]Faculty of Medicine and Health of Juiz de Fora, Dermatology, Brazil, [17]The Royal Hospital, Clinical Immunology and Allergy Unit, Muscat, Oman, [18]Kuwait University, College of Medicine, Microbiology Department, Kuwait City, Kuwait, [19]Sechenovskiy Universitet, Laboratory of Immune-mediated skin diseases, Institute for regenerative medicine, Biomedical Science & Technology Park, Moskva, Russian Federation, [20]Moscow State University, Medical Research and Education Center, Moskva, Russian Federation, [21]Hamad Medical Corporation, Allergy and Immunology Division, Department of Medicine, Doha, Qatar, [22]Kepler University Hospital, Campus Neuromed, Department of Dermatology and

Venereology, Linz, Austria, [23]King Faisal Specialist Hospital & Research Centre, Department of Dermatology, Riyadh, Saudi Arabia, [24]Medical University of Lublin, Department of Dermatology, Venereology and Pediatric Dermatology, Lublin, Poland, [25]University Hospital Carl Gustav Carus Dresden, Department of Dermatology Technical University Dresden, Dresden, Germany, [26]University of Cincinnati College of Medicine, Department of Internal Medicine, Division of Rheumatology, Allergy and Immunology, Cincinnati, United States, [27]Hospital Golnik - University Clinic of Pulmonary and Allergic Diseases Golnik, Division of Allergy, Slovenia, [28]Centre Hospitalier Universitaire de Grenoble, National reference center for angioedema, La Tronche, France, [29]University of Opole, Institute of Medical Sciences, Department of Internal Diseases with Division of Allergology, Opole, Poland, [30]Universidade Federal de Pernambuco, Centro de Pesquisa em Alergia e Imunologia, Hospital das Clinicas, Recife, Brazil, [31]Hospital Santa Casa de Misericórdia de Vitória, Asthma Reference Center, Brazil,[32]University Hospital of Wales, Department of Dermatology, United Kingdom, [33]Universidad de Especialidades Espíritu Santo, Research Department, Samborondón, Ecuador, [34]Respiralab, Department Allergy and Pulmonology, Guayaquil, Ecuador, [35]Universidade Federal do Paraná, Serviço de Alergia e Imunologia, Complexo Hospital de Clínicas, Departamento de Pediatria, Curitiba, Brazil, [36]Medical University of Sofia, Faculty of Public Health, Sofia, Bulgaria,[37]St James's Hospital, School of Medicine, Trinity College Dublin, Ireland, [38]University Medical Centre Ljubljana, Department of Dermatovenereology, Slovenia, [39]Hacettepe University Medicine Faculty, Department of Chest Diseases, Division of Allergy and Immunology, Türkiye, [40]NRC Institute of Immunology FMBA of Russia, Department of Allergology, Moscow, Russian Federation, [41]University of Cape Town, Department of Medicine, Cape Town, South Africa, [42]Université catholique de Louvain, Cliniques Universitaires Saint-Luc, , Department of Dermatology, Bruxelles, Belgium, [43]Istanbul University Faculty of Medicine, Department of Internal Medicine, Division of Immunology and Allergy Diseases, Türkiye, [44]Mangiagalli Clinic IRCCS Cà Granda Foundation Ospedale Maggiore Policlinico, Department of Dermatology, Milano, Italy, [45]Moscow City Research and Practical Center of Allergoloy and Immunology,, Moscow Healthcare Department, Moscow, Russian Federation, [46]Sechenow First Moscow State Medical University, Department of Clinical Immunology and Allergy, Moscow, Russia, Moscow, Russian Federation, [47]Astana Medical University, Department of Pulmonology, Astana, Kazakhstan,[48]Osaka Medical and Pharmaceutical University, Department of Dermatology, Takatsuki, Japan, [49]University of the Andes, Faculty of Medicine, Bogotá, Colombia, [50]Istanbul University Faculty of Medicine, Department of Internal Medicine, Division of Immunology and Allergy Diseases, Türkiye, [51]Dr. Dy Patil Medical College, Department of Dermatology, Navi Mumbai, India, [52]University of Coimbra, Department of Dermatology, University Hospital and Faculty of Medicine, Coimbra, Portugal, [53]David Tvildiani Medical University, Center of Allergy and Immunology, T'bilisi, Georgia,[54]St Thomas' Hospital, ,Department of Dermatology, London, United Kingdom, [55]Medical University of Lodz, Department of Immunology and Allergy, Łódź, Poland, [56]University Hospital of Zürich, Department of Dermatology, Zürich, Switzerland, [57]Medical University of Silesia, Department of Clinical Allergology and Urticaria, Katowice, Poland, [58]Campbelltown Hospital and Western Sydney University, Sydnea, Australia, [59]Mashhad University of Medical Sciences, Allergy Research Center, Mashhad, Iran, [60]Elbe Klinikum Buxtehude, Department of Dermatology, Buxtehude, Germany, [61]Medical University of Lodz, Barlicki Memorial Hospital, Department of Internal Medicine, Asthma and Allergy, Łódź, Poland, [62]Post Graduate Institute of Medical Education & Research, Chandigarh, Department of Dermatology, Venereology and Leprology, Chandigarh, India, [63]Hospital Médica Sur, Centro de excelencia en asma y alergia, México City, Mexico, [64]Ajou University School of Medicine, Department of Allergy and Clinical Immunology, Suwon, Korea, Rep. of South, [65]National and Kapodistrian University of Athens, University Hospital "Attikon", Allergy Unit, 2nd Department of Dermatology and Venereology, Athen, Greece, [66]Catholic University of Salta, Faculty of Health Sciences, Salta, Argentina,[67]Kobe University, Graduate School of Medicine, Department of Dermatology, Kobe, Japan, [68]University of Sakarya School of Medicine, Department of Dermatology, Sakarya, Türkiye, [69]Federal University of Paraíba, Department of Infectious, Parasitic and Inflammatory Diseases, Sao Paulo, Brazil, [70]Lauro Wanderley University Hospital, Ebserh Network, Sao Paulo, Brazil, [71]Hospital Italiano de Buenos Aires, Secciones Allergia, Buenos Aires, Argentina,[72]Aleksandrovska University Hospital, Clinic of Allergology, Sofia, Bulgaria, [73]London Allergy and Immunology Centre, Department of Allergy and Immunology, London, United Kingdom, [74]St John's Institute of Dermatology, Department of Allergy and

Immunology, London, United Kingdom, [75]Johns Hopkins Asthma & Allergy Center, Division of Allergy and Clinical Immunology, Department of Medicine, Baltimore, United States, [76]Marmara University Faculty of Medicine, Department of Dermatology, Istanbul, Türkiye, [77]Acıbadem Mehmet Ali Aydınlar University, School of Medicine, Department of Dermatology, Istanbul, Türkiye, [78]77 University of Antioquia, Group of Clinical and Experimental Allergy, Hospital "Alma Mater de Antioquia", Department of Allergology, Antioquia, Colombia, [79]Hacettepe University, Pediatric Allergy Asthma Division , Ankara, Türkiye, [80]Sorbonne Université, Tenon Hospital APHP, Department of Dermatology and Allergy, Paris, France, [81]Bezmiâlem Foundation University School of Medicine, Department of Dermatology, Istanbul, Türkiye, [82]Medical University of Lodz, Psychodermatology Department, Łódź, Poland, [83]Federal University of Rio de Janeiro, Medicine Department, Immunology Service, Rio de Janeiro, Brazil, [84]Aarhus University Hospital, Department of Dermatology, Aarhus, Denmark, [85]Smolensk State Medical University, Department of Clinical Immunology and Allergology, Smolensk, Russian Federation, [86]National and Kapodistrian University of Athens, 2nd Pediatric Clinic, Allergy Department, Athens, Greece

Introduction & Objectives:

Chronic urticaria (CU) is a condition characterized by wheals, angioedema, or both for longer than six weeks. The disease can last up to 5 years. Factors that predict long CU duration still remain ill-characterized. The objective of this study was to explore predictive factors contributing to the CU duration of 10 years or more.

Materials & Methods:

To identify predictors of long CU duration, we analyzed 2554 patients with CU enrolled in the multicenter, international COVAC-CU study. Patients, on average, were 43.7 years old (range: 18-91), 72% were female, and 70.4% had chronic spontaneous urticaria (CSU), 12.6% had chronic inducible urticaria (CIndU), and 17% had both. Patients were classified by disease duration, as patients with <120 months and ≥120 months disease duration, and compared for demographic features, disease characteristics such as type of urticaria, presence of angioedema, comorbidities, i.e., atopy and thyroid disease, and laboratory findings such as total IgE and anti-TPO positivity.

Results:

In this study, one in five CU patients (19.1%) had CU of ≥10 years duration. Patients with ≥10 years vs <10 years of CU duration were more often female (75.7% vs. 71%; p=0.041) and more often had a BMI≥30 Kg/m2 (27% vs. 22.6%; p=0.040). Rates of patients with ≥10 years of disease duration were highest in those with CSU without CIndU (64.2%) and lowest in those with CIndU without CSU (14.9%; CSU+CIndU: 20.9%). Patients with both wheals and angioedema had higher rates of ≥10 years long disease duration (21.6%) as compared to those with wheals without angioedema (16%; p<0.001). Higher rates of ≥10 years long disease duration were found in patients with comorbid systemic diseases compared to those without comorbidities (22.1% vs. 15.2; p<0.001), in the patients with vs. without thyroid disease (23.8% vs. 18.2%; p=0.008), and the patients with vs without hypertension (26.3% vs. 17.6%; p<0.001), with vs. without food allergies (25.1% vs. 18.6%; p=0,020), with vs. without dust allergies (24.1% vs. 18.5%; p=0,023), and with vs. without pollen allergies (24.3% vs. 18.6%, p=0,033). Median total IgE levels were higher in patients with ≥10 years vs <10 years of CU duration (132 IU/mL vs 109.5 IU/mL; p=0.003).

Conclusion:

In this study, with a large and diverse population of CU patients, several factors were linked to long disease duration. The results of regression analysis will be presented during the congress.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 4272

chronic spontaneous urticaria aggravated with mycoplasma pneumoniae

Sofija Peshova*[1], Vesna Trajkova[1], Kristina Trpcheva Stojkov[1]

[1]Воена Болница, Dermatology , Skopje, North Macedonia

Introduction & Objectives:

Chronic spontaneous urticaria (CSU) is a condition characterized with wheals, angioedema or both. Symptoms occur for more than six weeks reducing their quality of life. The underlying mechanism may be immunological and non immunological which in both cases results with mast cell degranulation, release of histamine and inflammatory mediators. There are current evidence of two subtypes od CSU autoallergic and autoimmune. Many studies show that CSU is aggravated from viral infections (Hepatitis), Helicobacter pillory, bacterial infections (Staphylococus aureus, Streptococcus pyogenes) or parasites in stool.

Mycoplasma pneumoniae is a common pathogen affecting the respiratory tract. Manifestations on the skin associated with MP often include CSU. In the following it is described a case of urticarial rush combined with MP infection.

Materials & Methods:

This case presents a 37 years old woman with appearance of wheals and angioedema on almost every part of the body. Initially after the first examination there was an indication for: complete blood count, thyroid status, immunological examinations, ASST (performed by the intradermal injection on the patient's own serum into the volar side of the forearm) to be classified as positive or negative, Helicobacter pillory, nasal and throat swab test, serological blood test, parasites from the stool and activity of lactose and gluten.

Results:

The patient appeared in our clinic with chronic urticaria in duration of six months. The clinical features also include fever, tiredness, headache and shortness of breath. Based on the anamnesis there might be a possibility that the symptoms are stress related. The patient went through a hysteroscopy procedure before. The methods mentioned above showed high levels of total bilirubin and cholesterol (total bilirubin 22,2 ; ref:20,5, cholesterol 5,25; ref:5,20). The CRP as a marker for inflammation is higher than referent (23,1; ref: <5) including the Igm from the immunological studies (2,45; ref:2,3). The thyroid status mentions high result of Anti TPO (>1300, ref:<60). The autologous serum skin test (ASST) was positive. MP was isolated with serological blood test who detects Igm, IgG antibodies. Given the elevated serum levels of Anti TPO, normal levels of IgE and positive ASST the patient was classified as autoimmune CSU.

Treatment plan included H1- antihistaminic up to 4 times (Bilastine), short term prednisolone, leukotriene modifier and local therapy. Because od the poor response to treatment with Omalizumab a ciclosporin was given. For the persisting MP infection and due to the symptoms of fever tablets Azitromycin were applied too.

In the last couple of weeks after treating the MP infection and while on ciclosporin the CSU condition of the patient is stabilized.

Conclusion:

In conclusion Mycoplasma pneumoniae infection may cause or trigger CSU and this case provides early awareness

od MP infection among urticaria patients.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 4289

Long-term Risk of Adverse Outcomes in Patients with Chronic Spontaneous Urticaria Treated with Cyclosporine A vs. Omalizumab: A Multi-Institutional, Retrospective Cohort Study.

Gregor Stuehff[1], Marlena Hawro[1], de Luca Laredo David Aldo[1], Cristian Papara[1], Diamant Thaçi[1], Tomasz Hawro[1, 2]

[1]Institute and Comprehensive Center for Inflammation Medicine CCIM, University of Lübeck, Lübeck, Germany, [2]Department of Dermatology, University Hospital Schleswig-Holstein (UKSH), Campus Lübeck, Lübeck, Germany

Introduction & Objectives:

Nearly half of patients with chronic spontaneous urticaria (CSU) do not respond to second generation antihistamines (sgAHs) even when administered at up to four times the standard dose. Omalizumab is the only other licensed treatment option, while Cyclosporine-A (CsA) is recommended as an off-label therapy. However, current evidence regarding the long-term adverse outcomes associated with these therapeutics in CSU is limited. The objective of this study was to assess the long-term adverse outcomes associated with the therapy of CSU using CsA vs. omalizumab.

Materials & Methods:

We recruited patients with CSU treated with omalizumab (N=6721) or with CsA (N=1177) from the "TriNetX Global Collaborative Network". Patients treated with omalizumab who had a history of CsA treatment and vice versa were excluded. Both patient cohorts were matched for baseline parameters, including demographic and laboratory parameters. After propensity score matching, 997 patients were assigned to each subgroup. We conducted a survival analysis using a Kaplan-Meier estimator and determined the hazard ratio (HR) for adverse outcomes. Additionally, we analyzed the absolute risk for adverse outcomes as well as the risk difference within 1 and 5-year timeframes.

Results:

The mean age of patients with CSU treated with CsA was 51.6 years (+/- 19.8 years SD) and with omalizumab was 51.8 years (+/- 18.6 years SD), with 78.6% and 77.9% female patients in the CsA and omalizumab cohorts, respectively.

Therapy with CsA was associated with an increased risk of major adverse cardiac events (MACE), thromboembolic events, and death (all-cause mortality) in the 5-year observation period (p value for the risk difference: p=0.0015, p=0.0019, p=0.0004, respectively), but not in the 1-year observation period (p=0.0529, p=0.0648, p=0.2301, respectively). The risk of acute and chronic kidney diseases, malignant neoplasms, and infections in patients treated with CsA compared to those treated with omalizumab increased within the 1-year observation period following therapy initiation (p=0.0002, p=0.0180, p=0.0118, respectively) and remained elevated within the 5-year observation period (p<0.0001, p=0.0068, p=0.0131, respectively). No difference was observed in psychiatric outcomes between patients treated with CsA and omalizumab within both observation periods (p=0.8789, p=0.3041, respectively). Therapy with omalizumab was associated with an increased risk of anaphylactic shock (p for the risk difference=0.0003).

Conclusion:

Our findings indicate that therapy with CsA in patients with CSU is associated with an elevated long-term risk of several severe adverse outcomes, including mortality. Therapy with omalizumab was only associated with an

increased risk of anaphylactic shock, consistent with previous findings over a shorter observation period. These data underscore the urgent need for safe therapy options for patients with severe CSU who do not respond to omalizumab.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 4763

Study of thyroid hormone balance in patients with chronic idiopathic urticaria

Tetyana Rudnyk[1], Solomiya Turkevich[1], Svitlana Volbyn[1], Nataly Ivanyushko-Nasarko[1], Orysya Syzon[1]

[1]Danylo Halytsky Lviv National Medical University, Department of Dermatology, Venereology, Lviv

Introduction & Objectives: The relevance of the problem of urticaria is generally recognized. The chronic infection foci, gastrointestinal diseases, diabetes mellitus, malignant neoplasms, etc. are among the factors that initiate the manifestation of the disease. However, the studies devoted to evaluation of the endocrine glands in such patients remain unaddressed. Although it is known that, in particular, the thyroid gland takes an active part in the development of allergic dermatoses.

Objective: To study the thyroid hormone balance in patients with chronic idiopathic urticaria.

Materials & Methods: We examined 92 patients with chronic idiopathic urticaria (34 men and 52 women) aged 15 to 67. The control group consisted of 26 healthy individuals. The duration of the disease ranged from 5 months to 29 years. Mild severity of dermatosis was diagnosed in 33 (36%) patients, moderate in 26 (28%) and severe in 33 (36%) patients. The thyroid hormone balance was assessed by determining the levels of thyroxine, triiodothyronine and thyroglobulin in the serum. **Results:** According to the data of our research, the thyroid hormone imbalance plays a significant role in the development of urticaria. It was examined in 92 patients under study. The control group consisted of 26 healthy persons. As the study shows, in patients with urticaria, there is a significant increase in the thyroxine level in the serum - up to 107.52±4.20 nmol/L (78.43±3.65 nmol/L; $p<0.05$ in healthy individuals) and thyroglobulin level - up to 29.73 ± 2.51 ng/mL (20.16 ± 1.34 ng/mL; $p<0.05$ in healthy individuals), which is combined with inhibition of triiodothyronine levels - up to 1.33 ± 0.06 n mol/L (1.52±0.04 n mol/L; $p<0.05$ in healthy individuals).

Conclusion: Thus, the thyroid hormone imbalance, the namely increased levels of thyroxine and thyroglobulin in the serum and a decrease level of triiodothyronine, is observed in patients with urticaria.** For a more complete evaluation of the thyroid gland in such patients, its involvement in autoimmune disorders seemed feasible to us, which gives us grounds for further research.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 4991

Patients with chronic urticaria have higher healthcare resource utilization: A nationwide cohort study

Jennifer Astrup Sørensen[1], Christian Vestergaard[2], Nana Aviaaja Lippert Rosenø[1], Caecilie Johansen[1], Alexander Egeberg[1, 3], Jacob Thyssen[1, 3], Panagiotis Orfanos[4], Nadine Chapman-Rothe[4], Tara Raftery[5], Simon Francis Thomsen[1, 6], Zarqa Ali[1]

[1]Copenhagen University Hospital - Bispebjerg and Frederiksberg, Department of Dermatology, Denmark,[2]Aarhus University Hospital, Department of Dermatology, Denmark, [3]Faculty of Health and Medical Sciences, University of Copenhagen, Department of Clinical Medicine, Denmark, [4]Novartis Pharma AG, Basel, Switzerland, [5]Novartis Ireland Ltd., Dublin, Ireland, [6]Faculty of Health and Medical Sciences, University of Copenhagen, Department of Biomedical Sciences, Denmark

Introduction & Objectives:

Chronic urticaria (CU) is a highly pruritic skin disease characterized by wheals and/or angioedema with an extensive impact on mental health and quality of life. The estimated lifetime prevalence of CU is approximately 1.5%. Despite this, only little is known about healthcare resource utilization (HCRU) in this group of patients.

Our objective was to compare HCRU in patients with CU, before and after the diagnosis of CU, to matched controls from the background population.

Materials & Methods:

All patients between January 1st 1997 and December 31st 2021 in the national Danish registries with an outpatient hospital-diagnosis of CU and with the full follow-up period available were included. The administrative registries are nationwide and enable cross-linkage of data on individual-level using a unique, personal identification number provided at birth or immigration. The registries contain data on sex, date of birth, hospital visits (in- and outpatient), private specialist visits, medication dispensed from pharmacy and hospital.

CU was defined as: 1) having received a hospital diagnosis of urticaria at least twice with a minimum of six weeks apart in a specialized outpatient clinic, or 2) having one hospital diagnosis of urticaria and within the first year after diagnosis having redeemed prescriptions for antihistamines (AH) corresponding to a dose of four AH daily (maximum recommended dose) for six weeks. All patients were matched 1:10 on sex and age with controls from the background population. Data on HCRU were obtained from one year prior to first hospital diagnosis and one year after.

Results:

A total of 9,049 patients with CU and 83,841 controls were included: 69% female and 31% male with a median age of 42 years for patients with CU and 43 years for controls and a range of 1-99 years for both. When adjusting for sex, age, income status and educational level (see table), patients with CU had significantly increased odds of hospital admissions, emergency room visits and outpatient visits for urticaria, itch or rash and all other diagnoses as well as visits to general practitioner (GP), GP after hours, private dermatologists, private internal medicine specialist and private psychiatrist and/or psychologists in the year prior to hospital diagnosis. In the year after diagnosis the odds decreased for all visit types except for outpatient visits for urticaria, itch or rash.

Conclusion:

Patients with CU have higher odds of HCRU both before and after diagnosis. However, these odds decrease in most categories in the year after the diagnosis. Earlier diagnosis may reduce overall HCRU and expenditure.

Odds ratio for healthcare resource utilization in patients with CU compared to controls.

	Odds ratio (95% Confidence interval) crude	Odds ratio (95% Confidence interval) adjusted for sex, age, income status and educational level
Hospital admission (urticaria, itch, rash)		
Before diagnosis	1003 (415-2421)	1013 (421-2437)
After diagnosis	284 (146-552)	285 (147-554)
Hospital admission (all other)		
Before diagnosis	2.37 (2.23-2.53)	2.44 (2.29-2.61)
After diagnosis	1.65 (1.53-1.77)	1.70 (1.58-1.83)
Emergency room visit (urticaria, itch, rash)		
Before diagnosis	322 (189-548)	320 (188-544)
After diagnosis	193 (105-354)	191 (104-350)
Emergency room visit (all other)		
Before diagnosis	2.52 (2.37-2.68)	2.53 (2.38-2.69)
After diagnosis	1.78 (1.66-1.91)	1.79 (1.67-1.92)
Outpatient clinic (urticaria, itch, rash)		
Before diagnosis	8753 (6597-11614)	8968 (6755-11907)
After diagnosis	9782 (7191-13304)	10048 (7385-13672)
Outpatient clinic (all other)		
Before diagnosis	3.06 (2.93-3.20)	3.26 (3.11-3.41)
After diagnosis	2.82 (2.70-2.94)	3.00 (2.87-3.14)
General practitioner visit		
Before diagnosis	2.34 (2.19-2.50)	2.40 (2.25-2.57)
After diagnosis	1.63 (1.55-1.72)	1.67 (1.59-1.76)
General practitioner visit after hours		
Before diagnosis	2.63 (2.50-2.77)	2.63 (2.50-2.78)
After diagnosis	1.93 (1.82-2.05)	1.92 (1.81-2.04)
Private dermatologist visit		
Before diagnosis	8.61 (8.18-9.06)	8.76 (8.32-9.22)
After diagnosis	2.67 (2.50-2.86)	2.70 (2.53-2.89)
Internal medicine visit		
Before diagnosis	4.40 (4.09-4.74)	4.54 (4.22-4.90)
After diagnosis	2.86 (2.59-3.15)	2.92 (2.64-3.21)
Private psychiatrist or psychologist visit		
Before diagnosis	1.98 (1.77-2.21)	1.95 (1.75-2.18)
After diagnosis	1.86 (1.66-2.09)	1.83 (1.63-2.06)

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 5138

Periorbital Subcutaneous Emphysema Mistaken for Angioedema

Gül Şekerlisoy Tatar[1, 2], Canan Dere[2], Ilknur Altunay[2], Ilayda Esna Gülsunay[2]

[1]Ordu Üniversitesi Eğitim ve Araştırma Hastanesi, Dermatology, ordu, Türkiye,[2]Seyrantepe Hamidiye Etfal Eğitim ve Araştırma Hastanesi, Dermatology, istanbul, Türkiye

Introduction & Objectives: Subcutaneous emphysema is the clinical outcome of air entering soft tissues under the skin. This is mostly seen in the skin that covers the chest and neck. It can be caused by iatrogenic injuries during surgery, endoscopy or mechanical ventilation. Although it can also be caused by blast injuries, cutaneous ulcers, it can also rarely occur spontaneously. On the other hand, angioedema is defined as a self-limiting swelling localized in the deeper layers of the skin and mucosa, often lasting for 2 to 3 days. Angioedema is a common disease in dermatology and easily diagnosed by clinical history and physical examination. Subcutaneous emphysema may mimic angioedema and misdiagnosis can lead to inappropriate treatment. Herein we present a case of bilateral periorbital subcutaneous emphysema that led to a mistaken diagnosis of periorbital angioedema.

Materials & Methods:

A 68-year-old man presented to the emergency department with the facial swelling. He had chest tube, and moxifloxacin prophylaxis was given post procedure for 3 days. The patient mentioned that at the end of the third day, his face had become swollen. In the dermatological examination, there was swelling on the entire face, especially affecting bilateral periorbital area. On physical examination, chest tube was seen in the left thoracic region. He was hospitalized with a possible diagnosis of periorbital angioedema related to moxifloxacin. The patient was started on 45.5 mg intravenous pheniramine and 1 mg/kg intravenous methylprednisolone. However, there was no improvement of the patient's symptoms after 2 days of steroid treatment. Upon re-evaluation, crepitation was detected in the swollen areas by palpation, and the patient was consulted to the Department of Thoracic Surgery. Chest X-ray was performed, and image result was interpreted as compatible with subcutaneous emphysema. Chest tube was revised and the patient's symptoms subsequently improved.

Results:

Angioedema is defined as swelling of deep dermal, subcutaneous, mucosal, or submucosal tissues due to plasma leakage. Diagnosis of angioedema may be challenging in the absence of concomitant urticarial lesions. Angioedema may be a potentially life-threatening condition and should be treated systematically. Some drugs may cause angioedema without wheals; the most common are nonsteroidal anti-inflammatory drugs and ACE inhibitors. In addition, there are reports of angioedema induced by fluoroquinolones; therefore, our case was first considered as angioedema related to moxifloxacin therapy. There are some conditions that may occasionally mimic angioedema, such as contact dermatitis, thyroid orbitopathy; as in our case, subcutaneous emphysema may also mimic angioedema. There are a limited number of case reports in the literature like ours, and it appears that subcutaneous emphysema is very likely to be confused with angioedema when it affects the skin of the face. Hence, subcutaneous emphysema must be considered, especially in patients with a history of pulmonary disease or surgery, when lesions are concentrated in the periorbital area but also spread to the neck and upper extremities and do not regress with systemic steroid therapy.

Conclusion:

Dermatologists should be aware of subcutaneous emphysema in the differential diagnosis of angioedema since early recovery and initiation of treatment are essential to prevent possible complications.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 5148

Sleep disturbances in patients with urticaria

Mohammad Almomani[1], Cyrine Smaoui[1], Kochergin Nikolay[1]

[1]First Moscow State Medical University, moscow, moscow, Russian Federation

Introduction & Objectives:**

The skin disease known as chronic spontaneous urticaria (CSU), formerly called chronic idiopathic urticaria (CIU), is characterized by recurrent episodes of rash, angioedema, or both, lasting more than six weeks without a clearly defined cause. Patients with CSU experience extremely distressing symptoms that significantly impact their health-related quality of life. These symptoms include itching and discomfort, loss of energy, sleep disturbances, emotional stress and restrictions in social and professional life. With an incidence of 10-20%, insomnia is the most common sleep disorder in the general population. The definition of insomnia includes difficulty falling asleep, staying asleep, waking up early, or not getting enough sleep when there is an opportunity to sleep, although the etiology of insomnia varies. Insomnia can lead to increased levels of interleukins and be a symptom or possibly a cause of several comorbidities. Individual diagnoses of insomnia often differ from the results of a polysomnographic study showing true sleep loss. to study the relationship between insomnia and frequent itching, skin diseases, chronic urticaria

Materials & Methods: The study included 20 patients with chronic urticaria and assessed insomnia (Insomnia Severity Index; ISI) and deterioration in dermatological quality of life (Dermatological Life Quality Index; DLQI). Disease activity was assessed using validated measures.

Results: The average ISI score in patients with chronic urticaria before exacerbation was 6.8, and after exacerbation - 14.9. In patients with chronic urticaria, the mean DLQI score was 8.5. Patients have demonstrated increased insomnia during exacerbation of the disease.

Conclusion: Thus, sleep is a factor that should be considered when treating skin conditions that cause itching. The results of this pilot study suggest that itching may not be the only cause of insomnia in patients with chronic urticaria

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 5199

A 12-Week Safety Assessment of Rilzabrutinib in Patients With Chronic Spontaneous Urticaria From the RILECSU Phase 2 Dose-Ranging Study

Kaushik Kuche* , Moshe Ben-Shoshan[1], Fernando Valenzuela[2], Marcus Maurer[3, 4], Iris Sun[5], Jessica Gereige[6], Leda Mannent[7], Remco Diab[8]

[1]McGill University Health Centre, Division of Pediatric Allergy and Clinical Immunology, Department of Pediatrics, Canada, [2]University of Chile & Probity Medical Research, Santiago, Chile,[3]Institute of Allergology, Charité - Universitätsmedizin, Berlin, Germany, [4]Fraunhofer Institute for Translational Medicine and Pharmacology ITMP, Immunology and Allergology, Berlin, Germany, [5]Sanofi, Beijing, China, [6]Sanofi, Cambridge, United States, [7]Sanofi, Paris, France, [8]Sanofi, Rotkreuz, Switzerland

Introduction & Objectives:

Rilzabrutinib (SAR444671) is an oral, reversible, covalent Bruton's tyrosine kinase inhibitor (BTKi). The reversibility of the covalent binding to Cys481 from BTK reduces the likelihood of off-target effects, thus potentially increasing tolerability of rilzabrutinib. BTK is expressed both in mast cells and B cells and plays a critical role in multiple immune-mediated disease processes, including those involved in chronic spontaneous urticaria (CSU). Here we report the safety analysis of the RILECSU phase 2 study in adults with moderate-to-severe CSU randomised to rilzabrutinib or placebo during the double-blind 12-week period.

Materials & Methods:

RILECSU (NCT05107115) is a 52-week phase 2 study comprising a 12-week, randomised, double-blind, placebo-controlled, dose-ranging efficacy and safety period followed by a 40-week open-label extension period. Participants are symptomatic adults aged ≥18 to 80 years with moderate to severe CSU (weekly Urticaria Activity Score (UAS7) ≥16; weekly Itch Severity Score (ISS7) ≥8) whose disease was not adequately controlled with H1 antihistamine treatment. Participants (N=160) were randomised 1:1:1:1 to rilzabrutinib 400 mg once every evening (QPM; n=38), 400 mg twice a day (BID; n=41), 400 mg three times a day (TID; n=41), or matching placebo (n=40). Safety assessments included adverse events (AEs), including serious AEs (SAEs) and AEs of special interest (AESIs), physical exams, vital signs, electrocardiograms (ECGs), and laboratory parameters.

Results:

AEs occurring at a higher frequency with rilzabrutinib than placebo included diarrhoea, nausea, and headache; the majority reported as mild (Table). The incidence of SAEs was low (n=1 placebo; n=2 TID), and severe AEs occurred at the same incidence across all rilzabrutinib dosing groups and placebo. Vital signs and ECG results were similar across all groups. There were no severe/serious infections or opportunistic infections. Skin-related AEs were more frequent in placebo and rilzabrutinib QPM than in rilzabrutinib BID or TID. There was no incidence of BTKi associated cytopenia, bleeding, or atrial fibrillation among patients treated with rilzabrutinib.

Conclusion:

Rilzabrutinib showed an acceptable safety profile and was well tolerated in the 12-week double-blind period of the RILECSU dose-ranging study in adults with moderate to severe CSU.

Table: Most common TEAEs through Week 12 (≥10% in any group)

TEAEs through Week 12, n (%)	Placebo (N=40)	Rilzabrutinib 400 mg QPM (N=38)	Rilzabrutinib 400 mg BID (N=41)	Rilzabrutinib 400 mg TID (N=41)
Diarrhea	6 (15.0)	3 (7.9)	12 (29.3)	12 (29.3)
Nausea	2 (5.0)	5 (13.2)	7 (17.1)	8 (19.5)
Headache	0	2 (5.3)	6 (14.6)	4 (9.8)
Abdominal pain	2 (5.0)	1 (2.6)	5 (12.2)	0

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 5299

Efficacy of standard-dose omalizumab against chronic urticaria: a real-world study

Duoqin Wang*[1], Hui Tang[1]

[1]Huashan Hospital, Fudan University, Department of Dermatology, shanghai, China

Introduction & Objectives:

Omalizumab has also been recommended for the treatment of CU. Meanwhile, real-world data are available on the efficacy and safety of omalizumab in patients with CSU, but there is a relative paucity of data on the use of the drug in the treatment of CIndU.To evaluate the efficacy and safety of omalizumab in Chinese patients with CSU, CIndU, or both, who had an inadequate response to H1-antihistamine treatment.

Materials & Methods:

This was an observational, retrospective chart review of patients with CU initiating omalizumab treatment.

Results:

In total, 78.4%(n=80/102) of patients showed a response to omalizumab at the end of the study period, and 36.3%(n=37/102). Among patients with different subtypes, 84.8%(n=38/45) of CSU, 40%(n=4/10) of CIndU and 80.9%(n=38/47) of CSU combined with CIndU patients showed a response. The mean of tIgE levels of early responders were significantly lower than late responders (432.12±603.58 vs. 1267.20±940.72 ng/mL, P=0.038), but both were above normal range. In total, 12 patients reinitiated omalizumab treatment after a relapse and all of them showed an early response. The mean response time was 1.33±0.65 months. The response mode was similar with their first treatment.

Conclusion:

Omalizumab is effective in difficult-to-treat patients with CSU and CSU combined with CIndU, but the response rate in patients with CIndU is unsatisfactory. Early responders had slightly higher tIgE levels at baseline. In the end, all of patients who reinitiated omalizumab treatment after a relapse showed an early response within 12 weeks of retreatment.

Omalizumab is effective in difficult-to-treat patients with CSU and CSU combined with CIndU, but the response rate in patients with CIndU is unsatisfactory. Early responders had slightly higher tIgE levels at baseline. In the end, all of patients who reinitiated omalizumab treatment after a relapse showed an early response within 12 weeks of retreatment.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 5493

Psychometric Evaluation and Estimation of Meaningful Change Thresholds of Patient-reported Outcome Measures in Chronic Inducible Cold Urticaria

Stephanie Rhoten[1], Isabelle Guillemin[2], Cristina Ivanescu[3], Rebeca Oliván[4], Jingdong Chao[5], Jérôme Msihid[6], Renata Martincova[7], Efstathios Zikos*[8], Marieke Krol[3], Chien-Chia Chuang[9], Ella Brookes[10]

[1]IQVIA, Patient Centered Solutions, San Francisco, CA, USA,[2]IQVIA, Patient Centered Solutions, Lyon, France, [3]IQVIA, Patient Centered Solutions, Amsterdam, The Netherlands,[4]IQVIA, Patient Centered Solutions, Barcelona, Spain, [5]Regeneron Pharmaceuticals, Inc., Sleepy Hollow, NY, USA,[6]Sanofi, Gentilly, France, [7]Sanofi, Prague, Czech Republic, [8]Sanofi, Chilly Mazarin, France, [9]Sanofi, Cambridge, MA, USA, [10]Sanofi, Reading, UK

Introduction & Objectives:

To assess the psychometric properties, including Meaningful Change Thresholds (MCTs) estimation of three patient-reported outcome measures (PROMs): Urticaria Control Test (UCT), Cold Urticaria Activity Score (ColdUAS), and Dermatology Life Quality Index (DLQI), in patients with chronic inducible cold urticaria (CICU).

Materials & Methods:

UCT consists of 4-items yielding a total score (range 0–16, higher score: better disease control). ColdUAS is a 5-item PRO questionnaire yielding an average sum score (range 0–6, higher score: higher severity). DLQI consists of 10-items yielding a total score (range 0–30, higher score: greater quality of life impairment). Data at baseline, Week-12, and Week-24 from a phase 3 dupilumab trial (NCT04681729) were analyzed to investigate reliability (internal consistency and test-retest), construct validity (convergent validity and known-groups validity), and sensitivity to change. An anchor-based approach was used to estimate within-patient and between-group MCTs using Patient Global Impression of Severity, Patient Global Impression of Change, and ColdUAS item-5 as anchors.

Results:

Baseline mean scores were 6.24 for UCT, 2.68 for ColdUAS, and 9.51 for DLQI. Adequate test-retest reliability for UCT (intraclass correlation coefficient range: 0.75–0.90) and ColdUAS (0.71–0.86), and low reliability for DLQI (0.04–0.51) were observed. Convergent validity was demonstrated by moderate-to-strong correlations for UCT and ColdUAS (absolute r range, 0.68–0.84 and 0.59–0.82, respectively), and low-to-strong correlations for DLQI (0.26–0.91). Adequate known-groups validity was demonstrated for all three PROMs, distinguishing between severity level groups. Significant differences in mean score changes over time were observed for groups defined using target anchors (all $p < 0.05$). MCTs were estimated for within-patient meaningful change (UCT: 4, range 3–5; ColdUAS: 1.6, range 1.2–2.3; DLQI: 7, range 4–10) and between-group meaningful change (UCT: 3.3, range 2.5–3.9; ColdUAS: 1.1, range 0.9–1.5; DLQI: 4.7, range 3.5–6.8).

Conclusion:

This study supports the use of UCT, ColdUAS, and DLQI in capturing CICU patient experiences of CICU.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 5727

Early and long-term efficacy and safety of remibrutinib in patients with chronic spontaneous urticaria: 52-week data from the Phase 3 REMIX-1 and REMIX-2 studies

Ana Giménez-Arnau*[1], Martin Metz[2], Michihiro Hide[3], Vipul Jain[4], Abdallah Khemis[5], Mark Lebwohl[6], Michael Palumbo[7], Sarbjit Saini[8], Ekin Şavk[9], Gordon Sussman[10], Robert Szalewski[11], Irena Walecka Herniczek[12], Hugh Windom[13], Bin Yang[14], Sibylle Haemmerle[15], Karine Lheritier,[15], Paula G. P. MacHado[16], El-Djouher Martzloff[17], Noriko Seko[18], Pengpeng Wang[19], Artem Zharkov[15], Marcus Maurer[20]

[1]Department of Dermatology, Hospital del Mar and Research Institute, Universitat Pompeu Fabra, Barcelona, , Barcelona, Spain, [2]Urticaria Center of Reference and Excellence, Institute of Allergology, Charité – Universitätsmedizin Berlin, Corporate Member of Freie Universität Berlin and Humboldt Universität zu Berlin, Berlin, Germany, [3]Department of Dermatology, Hiroshima City Hiroshima Citizens Hospital, Hiroshima, , Japan, [4]4Division of Clinical Immunology and Allergy, Department of Medicine, McMaster University, Hamilton, ON, , Canada, [5]Department of Dermatology, Polyclinique Saint George, Groupe KANTYS, Nice, , France,[6]Department of Dermatology, Icahn School of Medicine at Mount Sinai, New York, NY, USA, United States, [7]Allergy and Clinical Immunology Associates, Pittsburgh, PA, USA, [8]Johns Hopkins Asthma and Allergy Center, Baltimore, MD, USA, United States, [9]Department of Dermatology, Aydın Adnan Menderes University School of Medicine, Aydın, , Türkiye, [10]Division of Allergy and Clinical Immunology, University of Toronto, Toronto, ON, , Canada,[11]11Allergy, Asthma, and Immunology Associates PC, Lincoln, NE, USA, United States, [12]Department of Dermatology, Centre of Postgraduate Medical Education/Central Clinical Hospital MSWiA, Warsaw, , Poland, [13]Food Allergy Center of Florida, Windom Allergy, Sarasota, FL, USA, United States, [14]Department of Dermatology, Dermatology Hospital, Southern Medical University, Guangzhou, , China, [15]Novartis Pharma AG, Basel, , Switzerland, [16]Novartis Pharmaceuticals Corporation, East Hanover, NJ, USA, United States, [17]Novartis Pharma AG, Basel, Switzerland, United States, [18]Novartis Pharma KK, Tokyo, , Japan, [19]Novartis (China) Biomedical Research, Shanghai, , China, [20]Urticaria Center of Reference and Excellence, Institute of Allergology, Charité – Universitätsmedizin Berlin, Corporate Member of Freie Universität Berlin and Humboldt Universität zu Berlin, Berlin, , Germany

Introduction & Objectives:

Remibrutinib is an oral, highly selective Bruton's tyrosine kinase inhibitor that has shown superior efficacy vs placebo (Pbo) and favorable safety in the 24-week double-blind (DB) period of the Phase 3 REMIX-1 / -2 studies in patients with chronic spontaneous urticaria (CSU). Herein we report the outcome of both trials over 52 weeks, including a post-hoc analysis for Week (Wk) 1.

Materials & Methods:

REMIX-1 /-2 were multicentre, randomised, double-blind, placebo-controlled studies assessing efficacy and safety of remibrutinib in patients with CSU inadequately controlled with

H1-antihistamines (H1-AH). Patients were randomised 2:1 to remibrutinib 25 mg twice daily (b.i.d.) or Pbo over a 24-week DB period, followed by 28 weeks open-label treatment with remibrutinib 25 mg b.i.d. (patients on Pbo transitioned to remibrutinib at Wk 24 [Pbo-remibrutinib]). The primary endpoint scenarios were change from baseline (CFB) at Wk 12 in weekly Urticaria Activity Score (UAS7) and weekly Itch and Hives Severity Scores (ISS7/HSS7). Key secondary endpoints were responder rate for UAS7=0 (complete absence of itch and hives) at Wk 12 and UAS7≤6 (well-controlled disease) at Wks 2 and 12. Endpoints were assessed at Wks 1, 24 and 52,

along with adverse events (AEs) throughout the study.

Results:

A total of 470 patients (remibrutinib 25 mg b.i.d., n=313; Pbo, n=157) and 455 patients (remibrutinib 25 mg b.i.d., n=300; Pbo, n=155) were randomised in REMIX-1 /-2, respectively. At Wk 1, for CFB-UAS7, remibrutinib showed significantly greater improvements vs Pbo (Table); remibrutinib demonstrated superiority in CFB-UAS7, CFB-ISS7, and CFB-HSS7 at Wk 12 (primary endpoint), and improvements vs placebo were maintained up to Wk 24 (Table). Efficacy with remibrutinib was sustained up to Wk 52 in both studies as demonstrated by mean CFB-UAS7 in patients in the remibrutinib arm (REMIX-1, −23.2; REMIX-2, −23.0) (Table); CFB-ISS7 and CFB-HSS7 were also maintained up to Wk 52. In patients on the Pbo-remibrutinib arm, after switching to remibrutinib at Wk 24, a reduction in CFB-UAS7, CFB-ISS7 and CFB-HSS7 was observed from Wk 25 to Wk 52, in line with observations in the remibrutinib arm (Table).

Significant improvement in the proportion of patients achieving UAS7≤6 was observed as early as Wk 1 with remibrutinib vs Pbo in REMIX-1 and REMIX-2 (p=0.001; Table). At Wk 12, statistically significantly more patients achieved UAS7≤6 and UAS7=0 with remibrutinib vs Pbo, with significant improvements sustained up to Wk 24 in both studies (all p<0.001). UAS7≤6 and UAS7=0 achievement rates were further sustained with continued remibrutinib treatment up to Wk 52. In patients on the Pbo-remibrutinib arm, UAS7≤6 and UAS7=0 achievement rates improved from Wk 25 to Wk 52 after switching to remibrutinib, in line with observations in the remibrutinib arm (Table). Remibrutinib was well tolerated with long-term treatment up to Wk 52, with no increase in exposure adjusted incidence rates of AEs/serious AEs during the entire study period vs 24-week DB period.

Conclusion:

Remibrutinib showed fast efficacy as early as Wk 1, with further improvements at Wk 12 that were sustained up to Wk 52, with a favorable safety profile in the pivotal Phase 3 REMIX-1 and REMIX-2 studies. Remibrutinib has the potential to be an effective novel oral treatment option for patients with CSU inadequately controlled with H1-AH.

Table: Key efficacy outcomes in REMIX-1 and REMIX-2 studies (*Full Analysis Set*)

		REMIX-1		REMIX-2	
Time point	Efficacy outcomes	Remibrutinib 25 mg	Placebo	Remibrutinib 25 mg	Placebo
Baseline	UAS7 mean ± SD	30.8 ± 7.70	29.8 ± 7.61	30.3 ± 7.94	29.5 ± 7.55
Week 1	CFB-UAS7 LS mean ± SE[a]	-11.28±0.601	-4.04±0.806	-11.26±0.544	-2.90±0.719
	UAS7≤6 (%)[a]	12.6	0.7	10.8	0.7
	UAS7=0 (%)[a]	0.3	0.0	0.3	0.0
Week 2	UAS7≤6 (%)	33.7	3.3	30.0	5.9
Week 12	CFB-UAS7 LS mean ± SE	-20.0 ± 0.72	-13.8 ± 0.98	-19.4 ± 0.70	-11.7 ± 0.95
	UAS7≤6 (%)	49.8	24.8	46.8	19.6
	UAS7=0 (%)	31.1	10.5	27.9	6.5
Week 24	CFB-UAS7 LS mean ± SE	-20.7 ± 0.72	-16.0 ± 0.98	-20.4 ± 0.74	-13.7 ± 1.01
	UAS7≤6 (%)	54.7	35.3	51.9	27.5
	UAS7=0 (%)	35.6	19.6	35.7	15.7
		Remibrutinib 25 mg	Placebo-remibrutinib 25 mg[b]	Remibrutinib 25 mg	Placebo-remibrutinib 25 mg[b]
Week 52	CFB-UAS7 Mean ± SD	-23.2 ± 12.46	-23.0 ± 12.24	-23.0 ± 11.60	-22.4 ± 11.67
	UAS7≤6 (%)	62.9	64.1	62.2	62.4
	UAS7=0 (%)	44.8	42.7	45.9	42.2

[a]Post-hoc analysis.
[b]Patients who transitioned from placebo in the double-blind treatment period to open-label remibrutinib 25 mg b.i.d. at Week 24.
LS mean and percentage (%) presented for responder rate (UAS7=0; UAS7≤6) upto Week 24 are based on imputed data; mean and percentage (%) presented for responder rate (UAS7=0; UAS7≤6) at Week 52 are based on observed data.
CFB, change from baseline; LS, least squares; SD, standard deviation; SE, standard error; UAS7, weekly Urticaria Activity Score.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 5742

Chronic spontaneous urticaria and comorbidities in a Mexican population.

Pablo Leon[1], Silvia Cid Juárez[2]

[1]Centro Medico Nacional 20 de Noviembre, Ciudad de México, Mexico,[2]Espirometría CDMX, Ciudad de México, Mexico

Introduction & Objectives: Chronic spontaneous urticaria defined as the appearance of wheals, angioedema, or both for more than 6 weeks, without identification of a triggering factor. It affects 1-2% of the world's population, is more prevalent in women than men, affects quality of life, and is associated with various comorbidities. The objective of this study is to know the most common comorbidities in our study population.

Materials and methods: Observational, cross-sectional and single-center study, carried out in a reference hospital, over a period of three years (2020-2023), patient data were obtained through the electronic record, patients with a clinical diagnosis of chronic spontaneous urticaria were included. Male and female patients, both older and younger than eighteen years of age. Non-parametric statistics were used to describe the variables, to compare the means (Mann-Whitney U) and to evaluate independent variables using logistic regression. The data obtained were entered into a Microsoft Excel 365 spreadsheet and analyzed with STATA version 16 statistical software.

Results: 94 patients were studied, of which 81% (n=76) were female, the median age was 54 years (min-max: 5-86 years). 95% (n=89) of the study population was over 18 years old. The most common comorbidities in patients under 18 years of age were: allergic rhinoconjunctivitis, allergic asthma and atopic dermatitis. On the other hand, the most common comorbidities in patients over 18 years of age were: allergic rhinitis in 38%, systemic arterial hypertension in 24%. %, Hashimoto's disease in 18%, hypothyroidism in 18% ($p < 0.05$), anxiety-depression disorder in 12% ($p < 0.05$), history of cancer in 10% (breast cancer 3%, thyroid cancer 2%, cancer of the endometrium, esophagus, rectum, basal cell carcinoma, acute lymphoblastic leukemia 1% respectively), chronic gastritis in 6%, type 2 diabetes 6%, Graves' disease 5%, allergic asthma 5%, and thyroid goiter 5%.

Conclusion: Chronic spontaneous urticaria significantly influences the quality of life of patients, who can be negatively affected by the association with a wide range of comorbidities; Adequate control improves quality of life and response to treatment. Our study population most frequently presented allergic rhinitis, followed by systemic arterial hypertension, autoimmune thyroid pathology, hypothyroidism and depression anxiety disorder, the latter two being statistically significant.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6190

A Novel Pitch against the Itch - Recalcitrant Chronic Spontaneous Urticaria Successfully Controlled by Oral Tofacitinib monotherapy

Punit Saraogi*[1], Shruthi Janardhanan[1]

[1]Everything Skin & Hair by Dr Punit Saraogi, Dermatology, Mumbai, India

Introduction & Objectives:

The pathogenesis of Chronic Spontaneous Urticaria (CSU) involves an autoimmune pathway characterized by the presence of IgE autoantibodies (type I) or IgG autoantibodies (type IIb). Over 25% of patients of CSU are refractory to first-line treatment of four-fold dose escalation of second generation H1 antihistamines. Omalizumab binds to free IgE and inhibits FceRI receptor interaction on basophils and mast cells. Those with type IIb CSU (low IgE levels) are less likely to respond to omalizumab and often have delayed onset of response. Also cost & feasibility of administration are limitations in resource poor settings.

Cyclosporine(CysA) is an off-label add-on therapy for CSU. The role of CysA is best described as a short term crisis buster and is not preferred for long term control due to dose related side effects.

Other drugs such as Azathioprine, Dapsone, Mycophenolate mofetil, TNF- alpha inhibitors, IVIG, and even Dupilumab have been used in Urticaria with limited studies as an off label use.

Tofacitinib citrate is a JAK1/3 inhibitor that can block intracellular signaling of multiple key cytokines associated with urticaria and thus can provide steroid sparing advantage with anti-inflammatory and immunomodulatory effects.

Materials & Methods:

Our patient, a 68 year old female presented with a 12 year history of recurring CSU. Over the last 3 years with us, we followed the step-up approach of updosing of second generation H1 antihistamines 4 times, adding H2 antihistamine in various combinations. She was not open to Omalizumab due to cost & feasibility of administration. Further Investigations revealed low IgE levels making her a poor candidate for Omalizumab. We added Cyclosporin A(CysA) with very good results at 1 mg/kg and increased to 3 mg/kg with satisfactory reduction of Urticaria Activity Score(UAS7). Unfortunately due to dose related hypertension, CysA had to be tapered down and maintained at a low dose of 50mg/day. This led to frequent exacerbations with episodes of angioedema warranting short courses of low dose oral steroids. Tofacitinib was started at 5mg twice daily after relevant investigations and within 2 weeks her UAS7 score significantly improved to less than 7. CysA was then tapered and discontinued completely by week 4. She maintained well with lower doses of oral antihistamines. After 2 months she discontinued antihistamines on her own & was on monotherapy of Tofacitinib 5mgBD.

Results:

It's been 10 months since the start of therapy & 8 months of monotherapy of Tofaticitinib, her UAS7 is less than 7 with no therapy related side effects.

Conclusion:

There are limited studies/reports on the efficacy of JAK inhibitors in cases of CSU. The relative safety and minimal contraindications for Tofacitinib combined with lower cost considering the availability of generic medication

makes it an ideal stepladder in the treatment of CSU.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6246

Impact of remibrutinib on Dermatology-Related Quality of Life (DLQI) in patients with chronic spontaneous urticaria in the phase 3 REMIX-1 and REMIX-2 studies

John Reed*[1], Martin Metz[2, 3], Romi Saini[4], Robert Szalewski[5], Mark Lebwohl[6], Marcus Maurer[2, 3], Gordon Sussman[7], Sibylle Haemmerle[8], Noriko Seko[9], Pengpeng Wang[10], Clarice Field[11], Michael Palumbo[12]

[1]Churchill Hospital, Oxford, United Kingdom, [2]Urticaria Center of Reference and Excellence (UCARE), Institute of Allergology, Charité – Universitätsmedizin Berlin, corporate member of Freie Universität Berlin, Humboldt Universität zu Berlin and Berlin Institute of Health, Berlin, Germany, [3]Fraunhofer Institute for Translational Medicine and Pharmacology ITMP, Immunology and Allergology, Berlin, Germany, [4]Johns Hopkins Asthma & Allergy Center, Baltimore, United States, [5]Allergy, Asthma and Immunology Associates, P.C., Lincoln, United States, [6]Icahn School of Medicine at Mount Sinai, New York, United States, [7]University of Toronto, Division of Allergy and Clinical Immunology, Toronto, Canada, [8]Novartis Pharma AG, Basel, Switzerland, [9]Novartis Pharma KK, Tokyo, Japan, [10]Novartis (China) Biomedical Research, Shanghai, China, [11]Novartis Ireland, Dublin, Ireland, [12]Allergy & Clinical Immunology Associates, Pittsburgh, United States

Introduction & Objectives:

Over 50% of patients with chronic spontaneous urticaria (CSU) experience inadequate disease control with H1-antihistamines, negatively impacting quality of life (QOL). Remibrutinib is a novel, oral, highly selective Bruton's tyrosine kinase inhibitor that has demonstrated superiority vs placebo in change from baseline in Urticaria Activity Scores at Week 12, with a favourable safety profile, in the primary analysis of the REMIX-1 and REMIX-2 studies. In this analysis, we report the effect of remibrutinib on Dermatology-Related Quality of Life (DLQI) in REMIX-1 and REMIX-2 up to Week 52. Our objective was to evaluate whether long-term treatment with remibrutinib sustains improvements in DLQI outcomes.

Materials & Methods:

REMIX-1 and REMIX-2 are identical, Phase 3, double-blind, placebo-controlled studies in patients ≥18 years with CSU inadequately controlled by second-generation H1-antihistamines (H1-AH). Patients were randomised 2:1 to receive oral remibrutinib 25 mg or placebo twice daily (bid) over a 24-week double-blind treatment period. This was followed by a 28-week open-label treatment period (total treatment of ≤52 weeks). During the open-label treatment period, all patients, including those previously receiving placebo were assigned to receive remibrutinib 25 mg bid. All patients were on H1-AH as background therapy at a locally approved licensed posology throughout the study with the option to add a different H1-AH as rescue therapy, used on an as-needed basis up to 4-fold of the approved dose. DLQI questionnaires were completed at baseline and at Weeks 4, 12, 24 and 52 to measure the impact of CSU on patient's QOL. The number of patients that achieved DLQI=0-1 (no impact on patient's life), as well as the DLQI change from baseline were recorded up to Week 52.

Results:

At baseline, patients in both trials reported on average a high disease impact of CSU on QOL, based on DLQI scores (DLQI=11-20). In patients receiving remibrutinib vs placebo, the DLQI scores at baseline (Mean±SD) were 14.2±7.0 vs 13.5±6.8 (REMIX-1) and 14.0±7.5 vs 13.6±6.7 (REMIX-2). Significantly more patients treated with remibrutinib vs placebo achieved no impact of disease on QOL, i.e., DLQI=0-1 (imputed data) at Week 12 (REMIX-1: 39.0% vs 22.2%, $P<0.001$; REMIX-2: 35.7% vs 18.3%, $P<0.001$) and at Week 24 (REMIX-1: 46.1% vs 28.1%,

P<0.001; REMIX-2: 40.7% vs 20.3%, *P*<0.001). DLQI change from baseline (Mean±SD; observed data) was greater at Weeks 4, 12 and 24 with remibrutinib vs placebo **(Table)**. At Week 52, there was an improvement in DLQI for all patients in both REMIX-1 and REMIX-2 trials **(Table)**.

Conclusion:

Remibrutinib demonstrated significant improvements in DLQI vs placebo. For patients in the remibrutinib arm, the improvement in DLQI was sustained up to Week 52. For patients who received placebo and transitioned to receive remibrutinib at Week 24, a comparable improvement in DLQI was achieved at Week 52.

Table: Change from baseline in DLQI total score in REMIX-1 and REMIX-2 studies (Observed data)

Time Point	REMIX-1		REMIX-2	
	Remibrutinib N=309	Placebo N=153	Remibrutinib N=297	Placebo N=153
Baseline[a]	14.2±7.0	13.5±6.8	14.0±7.5	13.6±6.7
Week 4[b]	-9.5±7.2	-4.8±6.7	-8.3±7.5	-4.3±7.0
Week 12[b]	-9.8±7.2	-6.3±7.5	-8.3±8.3	-6.0±7.1
Week 24[b]	-10.1±8.0	-7.2±7.6	-9.3±8.1	-6.3±7.9
	Remibrutinib N=309	Switch from Placebo to Remibrutinib[c] N=153	Remibrutinib N=297	Switch from Placebo to Remibrutinib[c] N=153
Week 52[b]	-9.9±7.3	-9.3±7.7	-9.6±8.4	-8.5±8.0

[a]All values are mean±standard deviation.
[b]All values are mean±standard deviation change from baseline. For each post-baseline week, only subjects with a value at both baseline and the respective week are included.
[c]Patients that received placebo up to Week 24 and were then reassigned to receive remibrutinib between Weeks 24-52.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6384

Atypicals cases of mediterranean spotted fever in morocco

Zakia Douhi*[1], El Fid Kawtar[1], Soughi Meriem[1], Elloudi Sara[1], Baybay Hanane[1], Mernissi Fatima Zahra[1]

[1]Hospital University Hassan II , Dermatology, Fez, Morocco

Introduction & Objectives:

Mediterranean spotted fever (MSF) is an infection caused by a small, strict intracellular bacilli belonging to Rickettsia. It is generally characterized by a fever followed by maculopapular cutaneous rash with an escharotic spot. However, their clinical manifestations are largely undifferentiated and may range from mild to severe disease, some clinical forms will be atypical and difficult to diagnose. We report atypical cases whose clinical manifestations were confusing.The aim of this study was to report the different atypical cases of delayed rickettsioses diagnosis, with extracutaneous manifestations, notably neurological and digestive.

Materials & Methods:

Retro-prospective study including patients with rickettsioses who consulted the emergency of the hospital university center of fez between March and April 2024.

Results:

We collected 16 atypical cases of rickettsial disease, with a male predominance of 66%, aged between 47 and 77 years, who initially consulted the emergency room for a consciousness disorder in 15 patients : A lumbar puncture and a cerebral magnetic resonance imagery were performed, showing cerebral vasculitis in 7 patients, and an abdominal scan of one patient in favor of a stage E pancreatitis. The sixth patient presented for diffuse infiltrative purpura of the lower limbs whose skin biopsy was in favor of cutaneous vasculitis. Rickettsial serology was positive in 13 patients. All our patients were treated by a bi-antibiotic therapy: doxycycline + ciprofloxacin with good evolution, except in one case which was died.

Conclusion:

The frequency of MSF in Morocco is not completely elucidated. Systemic manifestations: neurological, digestive and cutaneous vasculitis are atypical and can be life threatening. Hence the importance of a good knowledge of dermatological semiology that allows an early diagnosis in order to institute an effective treatment.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6477

To study the co-orelation between serum IgE levels and severity of Chronic inducible urticaria: a retrospective analysis

Aman Goyal*[1], Muthu Kumaran[1], Anuradha Bishnoi[1], Davinder Parsad[1]

[1]Post Graduate institute of medical education and research, chandigarh, Dept. of Dermatology, venereology and leprology, Chandigarh, India

Introduction: Relationship between serum IgE levels and severity of chronic spontaneous urticaria has been studied in detail but the correlation between serum IgE levels and chronic inducible urticaria(CIndU) is vaguely expressed.

Objectives: To explore the relation of serum IgE levels with the severity of CIndU and to explore whether this relationship has any impact on treatment outcome.

Materials & Methods: Urticaria clinic records of the institute were retrospectively screened between 01/5/2021 to 31/5/2022 and details regarding clinico-epidemiological treatment parameteres were obtained. The treatment response obtained was defined based on Urticaria Control Test(UCT) score three months after treatment initiation.

Results: Out of 376 chronic urticaria patients,only 132 had CIndU, 240 had chronic spontaneous urticaria and 4 patient had both. In patients with chronic inducible urticaria mean age was 31.95(±12.67) years with range of 6-70 years,of which 48(36.4%) were males and 84 (63.6%) were females.Out of 132,116 had symptomatic dermographism,14 had cholinergic urticaria and 2 had cold urticaria.Considering serum IgE levels>100 IU/ml as raised and<100 IU/ml as normal,we found102(77.3%) patients had higher serum IgE levels while30(22.7%) had normal serum IgE levels(p-value=0.41).There was a trend in coorelation of CIndU severity (UAS7) and serum IgE levels (spearma's rho=0.165,p-value= 0.058). At the end of 3 months treatment, 28% responded to single dosage of 2nd generation antihistamines(UCT=16),59% responded with increased drug dosage to 4 times (UCT=12-15) while 12.1% were the non-responders(UCT<12) started on cyclosporin/omalizumab.There was a positive coorelation of UCT and CindU severity (Spearman's rho=0.551;p=0.001).

Conclusion: Thus, present study oncludes that serum IgE levels do not coorelates with the disease severity and treatment response in patients with chronic inducible urticaria.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6726

Impact of chronic spontaneous urticaria on health-related quality of life domains: Country-specific data from patients participating in the Urticaria Voices study

Tonya A. Winders[1], Jonathan A. Bernstein[2], Jessica McCarthy[3], Pallavi Saraswat[4], Nadine Chapman-Rothe[5], Tara Raftery[6], Karsten Weller[7]

[1]Global Allergy and Airways Patient Platform, Vienna, Austria, [2]Bernstein Allergy Group and Clinical Research Center, Cincinnati, Ohio, USA, [3]Novartis Pharmaceuticals Corporation, East Hanover, New Jersey, USA, [4]Novartis Healthcare Pvt. Ltd, Hyderabad, India, [5]Novartis Pharma AG, Basel, Switzerland, [6]Novartis Ireland Ltd., Dublin, Ireland, [7]Institute of Allergology, Charité – Universitätsmedizin Berlin, Corporate Member of Freie Universität Berlin and Humboldt-Universität zu Berlin, Berlin, Germany

Introduction & Objectives:

Chronic spontaneous urticaria (CSU) is characterised by itchy wheals/hives and/or angioedema for more than 6 weeks and can significantly impact health-related quality of life (HRQoL). We previously reported pooled data on the unmet needs of patients with CSU, burden of disease on HRQoL and worldwide patients' experiences on living with CSU from the Urticaria Voices study. Herein, we report country-wide data on the impact of CSU on HRQoL domains. We also report additional services (e.g. dietician or psychological support) adopted by the patients for relief from their CSU symptoms.

Materials & Methods:

The Urticaria Voices study was a global, cross-sectional online survey conducted from February to September 2022 in patients with CSU in Canada, France, Germany, Italy, Japan, UK and USA. Eligible patients had a self-reported clinician-provided diagnosis of CSU and were currently following a physician-prescribed treatment. Data were analysed descriptively, and the results are reported as % (n/N) or in terms of top 3 box scores of high importance, i.e. percentage of respondents selecting the 3 highest ratings on the scale, pooled and by country.

Results:

Overall, 582 patients with CSU participated in the study: 62% were female, mean (SD) age was 42 (11.9) years and 79% (460/582) reported being on H1 antihistamines (AH), 84% of whom had inadequate control (Urticaria Control Test <12). Globally, 36% (207/582) of patients reported overall high negative impact of CSU on HRQoL domains, particularly for mental and emotional well-being (36% [207/582]), social life and intimate relationships (31% [179/582]) and activities of daily living (29% [166/582]). At country level, the proportion of patients reporting high negative impact of CSU varied from those in Italy (23% [15/64]) and Germany (52% [41/79]). The high negative impact of CSU on HRQoL domains was similar across countries, with some differences including the mental and emotional well-being (23% [18/79] in Germany and 44% [32/73] in Canada), social life and intimate relationships (16% [13/79] in Germany and 40% [29/73] in Canada) and activities of daily living (14% [11/79] in Germany and 37% [32/87] in the UK; **Table**). Globally, patients reported being negatively impacted by stress due to the spontaneous nature of CSU (37% [214/582]), avoiding social interactions (31% [178/582]), not being able to be intimate with their partners as frequently as they desired (24% [137/582]) and being stared at in public or asked whether they were contagious (33% [192/582]). In addition to their prescribed treatments for CSU, currently, 21% (122/582) of patients consulted a dietician, 19% (111/582) reported using psychological support, 19% (108/582) reported using homeopathic therapy, 18% (104/582) reported practicing meditation, 15% (90/582) consulted a sleep clinic and 13% (73/582) reported using acupuncture for relief from their CSU

symptoms.

Conclusion:

Across countries, patients with CSU report high levels of negative impact across HRQoL domains. Mental and emotional well-being were most consistently ranked as being negatively impacted. Some variation in HRQoL domains was observed, which require further research. The majority of patients report ongoing symptomatic disease despite treatment (mainly AH) and some seeking additional interventions such as dietician support, psychological support and homeopathic therapy. New treatments alleviating the burden of CSU symptoms are required.

Table: Percentage of patients with CSU, per country, ranking high levels of importance[a] across HRQoL domains

HRQoL domain, n (%)	Global (N=582)	Canada (n=73)	France (n=86)	Germany (n=79)	Italy (n=64)	Japan (n=41)	UK (n=87)	USA (n=152)
Overall negative impact	207 (36%)	21 (29%)	22 (26%)	41 (52%)	15 (23%)	15 (37%)	36 (41%)	57 (38%)
Mental and emotional well-being	207 (36%)	32 (44%)	30 (35%)	18 (23%)	20 (31%)	13 (32%)	30 (34%)	64 (42%)
Social life and intimate relationships	179 (31%)	29 (40%)	27 (31%)	13 (16%)	14 (22%)	8 (20%)	30 (34%)	58 (38%)
Activities of daily living	166 (29%)	24 (33%)	28 (33%)	11 (14%)	15 (23%)	7 (17%)	32 (37%)	49 (32%)
Professional and academic life	133 (23%)	19 (26%)	21 (24%)	11 (14%)	11 (17%)	6 (15%)	24 (28%)	41 (27%)
Family life and fulfilling responsibilities to others	127 (22%)	18 (25%)	17 (20%)	7 (9%)	12 (19%)	5 (12%)	22 (25%)	46 (30%)
Financial life	119 (20%)	8 (11%)	11 (13%)	12 (15%)	18 (28%)	10 (24%)	20 (23%)	40 (26%)

[a]Top 3 box scores of high importance: 8, 9 or 10

Data are presented as n (%), unless specified otherwise. Data are based on response to survey questions.

CSU, chronic spontaneous urticaria; HRQoL, health-related quality of life; N, total number of patients; n, number of patients in each subgroup.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6728

Physician's perspective on the burden of CSU for patients and unmet need while treating CSU: Country-wide data from Urticaria Voices

Jonathan Bernstein*[1], Tonya Winders[2], Jessica McCarthy[3], Pallavi Saraswat[4], Nadine Chapman-Rothe[5], Tara Raftery[6], Karsten Weller[7]

[1]Bernstein Allergy Group and Clinical Research Center, Cincinnati, United States,[2]Global Allergy and Airways Patient Platform, Vienna, Austria, [3]Novartis Pharmaceuticals Corporation, East Hanover, United States, [4]Novartis Healthcare Pvt. Ltd., Hyderabad, India, [5]Novartis Pharma AG, Basel, Switzerland, [6]Novartis Ireland Ltd., Dublin, Ireland, [7]Institute of Allergology, Charité – Universitätsmedizin Berlin, Corporate Member of Freie Universität Berlin and Humboldt-Universität zu Berlin, Berlin, Germany

Introduction & Objectives:

Chronic spontaneous urticaria (CSU) is characterised by itchy wheals/hives and/or angioedema for more than 6 weeks. There is limited availability of real-world data from CSU-treating physicians' perspective. This analysis from the Urticaria Voices study investigated country-wide physicians' perspective on the burden of CSU for patients, unmet needs of physicians and their treatment goals.

Materials & Methods:

Urticaria Voices is a global cross-sectional online survey conducted in patients with CSU and CSU-treating physicians in the USA, Canada, UK, Germany, France, Italy and Japan. The study involved participation of physicians (dermatologists, allergists or immunologists), who could make independent decisions for treating their patients with CSU. Physicians used a 10-point scale to assess various parameters such as burden of CSU on patients and treatment goals. Data were analysed descriptively, and the country level results are reported in terms of top 3 box scores of high importance, i.e. percentage of respondents selecting the 3 highest ratings on the scale, pooled and by country.

Results:

In total, 862 CSU-treating physicians (60% dermatologists and 40% allergists) participated in the study. Over half of physicians perceived CSU as a serious disease and about 65% felt that it negatively impacts patients' lives. Physicians reported high (mean ± standard deviation) scores for perceived negative impact on patients' mental well-being (8.2±1.7), social life and intimate relationships (7.8±1.7), activities of daily living (7.5±1.8), professional lives (7.5±1.8), family life (7.4±1.9) and ability to reach full life potential (6.1±2.0). Notably, while the high disease burden is recognised by physicians across countries, the extent of perception varies for all categories. For example, in Canada, 80% of physicians perceived a high (top 3 box scores of high importance) negative impact of CSU on mental well-being ranging to 62% in Japan.

Physicians considered improvement in overall quality of life (81%), being free of itch and hives (75%), improved sleep (74%) and ability to perform daily activities (73%) as the most important treatment goals for patients with CSU. However, the extent of physicians' perception varied between countries (e.g., ranging from, 90% in Canada to 70% in Japan perceived improvement in overall quality of life as a treatment goal (top 3 box scores of high importance; Table).

Physicians reported several unmet needs including better understanding of the cause of CSU (48%), better access

to treatments (47%), reduced administrative barriers for prescribing biologics (45%) and increased awareness of disease among primary care practitioners (44%) and public (37%). The extent of physicians' perception also differed for all categories of unmet needs, e.g., 80% of physicians in Canada compared to 25% in France requested for better access to treatments. Furthermore, physicians expressed satisfaction with biologic treatments (mean score 6.4/10), particularly omalizumab (7.7), but were neutral towards antihistamines (5.7) and slightly dissatisfied with corticosteroids (4.2).

Conclusion:

Physicians across countries are aligned on the high burden of CSU on patient's life, treatment goals and unmet needs. However, the extent of these perceptions varied between the physicians from participating countries. Further research to understand these differences may provide opportunity to improve outcomes for patients.

Table: Percentage of physicians, per country, ranking high levels of importance[a] to disease burden and treatment goals categories in CSU

	Total (n = 862)	USA (n = 265)	UK (n = 74)	Canada (n = 40)	Italy (n = 209)	Germany (n = 114)	France (n = 59)	Japan (n = 101)
Physician characteristics, N (%)[b]								
Dermatologist N (%)	517 (60%)	145 (55%)	36 (49%)	30 (75%)	158 (76%)	114 (100%)	34 (58%)	-
Allergists N (%)	345 (40%)	120 (45%)	38 (51%)	10 (25%)	51 (24%)	-	25 (42%)	101 (100%)
Burden of urticaria on patients, N (%)								
Overall negative impact	565 (66%)	189 (71%)	49 (66%)	33 (83%)	120 (57%)	82 (72%)	36 (61%)	56 (55%)
Negative impact on mental well-being	619 (72%)	200 (75%)	50 (68%)	32 (80%)	147 (70%)	83 (73%)	44 (75%)	63 (62%)
Negative impact on social life and intimate relationships	538 (62%)	161 (61%)	42 (57%)	29 (73%)	134 (64%)	76 (67%)	35 (59%)	61 (60%)
Negative impact on activities of daily living	494 (57%)	138 (52%)	46 (62%)	26 (65%)	123 (59%)	74 (65%)	33 (56%)	54 (53%)
Negative impact on family life	458 (53%)	131 (49%)	37 (50%)	23 (58%)	115 (55%)	66 (58%)	25 (42%)	61 (60%)
Negative impact on professional life	475 (55%)	128 (48%)	37 (50%)	29 (73%)	114 (55%)	75 (66%)	32 (54%)	60 (59%)
Negative impact on financial life	321 (37%)	89 (34%)	25 (34%)	19 (48%)	89 (43%)	33 (29%)	11 (19%)	55 (54%)
Negative impact on ability to reach full potential in life	117 (14%)	35 (13%)	17 (23%)	9 (23%)	22 (11%)	19 (17%)	10 (17%)	5 (5%)
Treatment goals, N (%)								
Improve overall quality of life	694 (81%)	220 (83%)	60 (81%)	36 (90%)	169 (81%)	90 (79%)	48 (81%)	71 (70%)
Be free of itch and hives	649 (75%)	202 (76%)	55 (74%)	31 (78%)	165 (79%)	85 (75%)	43 (73%)	68 (67%)
Improved sleep	635 (74%)	209 (79%)	56 (76%)	32 (80%)	154 (74%)	87 (76%)	41 (69%)	56 (55%)
Being able to perform usual daily activities	627 (73%)	203 (77%)	56 (76%)	33 (83%)	150 (72%)	81 (71%)	40 (68%)	64 (63%)
Staying in remission from symptoms over the long-term	609 (71%)	186 (70%)	54 (73%)	26 (65%)	158 (76%)	83 (73%)	44 (75%)	58 (57%)
Improve mental health/decrease emotional distress	606 (70%)	193 (73%)	58 (78%)	32 (80%)	149 (71%)	82 (72%)	31 (53%)	61 (60%)

USA: United States of America; UK: United Kingdom.
[a]Measures of parameters were collected on a 10-point scale, with 1 = low scores and 10 = high scores. Top 3 box results refer to the percentage of physician choosing a high score of 8, 9 or 10, except for impact on ability to reach full potential of life which was bottom 3 box scores of high negative impact 1, 2 or 3 (where, 1 = unable and 10 = able to reach full potential).
[b]The classification of physicians into dermatologists and allergists was not consistent due to different country-specific educational systems which impacted the extent to which a physician could have a major or sub-speciality in either Dermatology or Allergology. As a result, there were no dermatologists in Japan and no allergists in Germany. Instead, German immunologists with a sub-specialisation in Allergology were allocated to Allergists, however, the reader should interpret these results with caution given the arbitrary criterion.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 3298

Leveraging machine learning to develop a prognostic model for chronic spontaneous urticaria

Ana Giménez-Arnau*[1], Romi Saini[2], Jordan Talia[3], Jessica Gereige[4], Flavio Dormont[4], Leda Mannent[5]

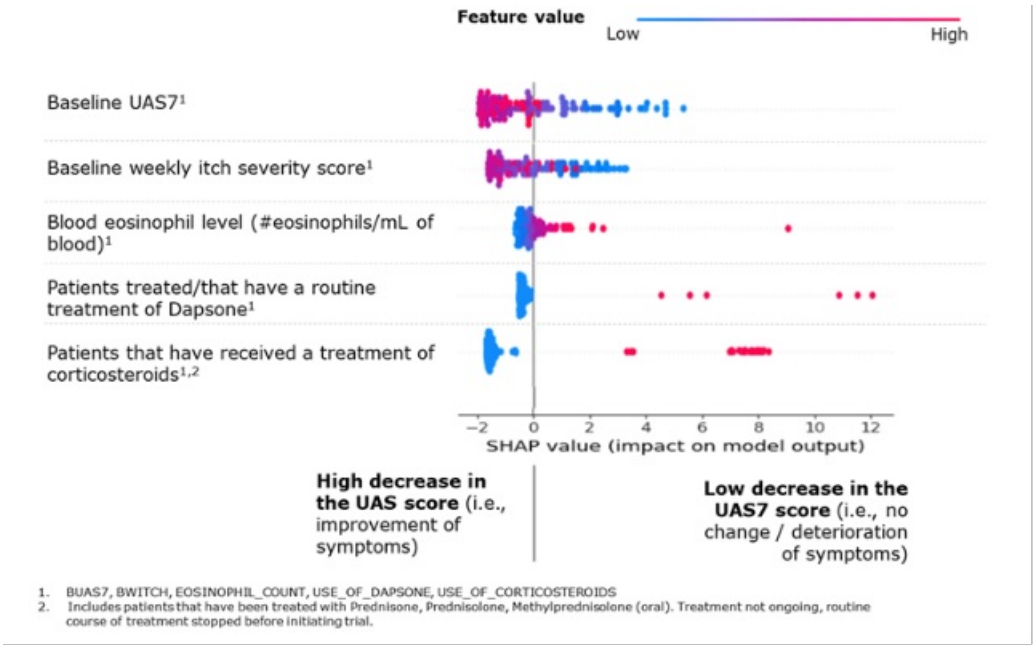
[1]Hospital del Mar, Barcelona, Spain, [2]Johns Hopkins Asthma & Allergy Center, Baltimore, United States, [3]The Mount Sinai Hospital, New York, United States, [4]Sanofi, Cambridge, United States, [5]Sanofi, Paris, France

Introduction & Objectives: Chronic spontaneous urticaria (CSU) is a common immunologic skin disease characterised by episodes of pruritic wheals and/or angioedema lasting >6 weeks. The disease progression of CSU varies among patients; therefore, identifying patient characteristics may help define prognostic factors and predict disease progression. Here, leveraging artificial intelligence tools, a prognostic model for patients with CSU that predicts disease progression was developed.

Materials & Methods: All features available from placebo-treated patients in the ASTERIA I (NCT01287117) and GLACIAL (NCT01264939) trials, sourced from TransCelerate, were analysed. Common features of clinical and statistical relevance to the clinical endpoint of change in weekly Urticaria Activity Score (UAS7, measuring itch and hives) were prioritised and used to train five different machine-learning modelling approaches. Model performance was assessed with the cross-validation approach Leave-One-Out to avoid overfitting. The best model selected was that which demonstrated the best performance as measured by mean absolute error of predicted to actual progression of UAS7 over 12 weeks, whilst bearing the highest confidence in capacity to rank patients between one another based on their natural progression as measured by Spearman rank correlation.

Results: Thirty-nine baseline demographic and clinical features common amongst placebo-treated patients from previous randomised clinical trials were selected based on clinical relevance. Each of these features was used to train the five different machine-learning models, which included Support Vector Regression, Ridge, LASSO, Decision Tree, and Random Forest. The Support Vector Regression model demonstrated the best performance (mean absolute error of 8.82; Spearman correlation of 0.39) in predicting the progression of UAS7 over 12 weeks. In addition, several patient features were associated with limited progression of CSU (i.e., improvements in UAS7), such as low baseline UAS7 or weekly Itch Severity Score, high blood eosinophil levels, and previous treatment with oral corticosteroids (Figure 1).

Conclusion: Using machine learning, a prognostic model that identified patient features linked to disease progression of CSU was developed. This model can aid in predicting disease progression in patients.



1. BUAS7, BWITCH, EOSINOPHIL_COUNT, USE_OF_DAPSONE, USE_OF_CORTICOSTEROIDS
2. Includes patients that have been treated with Prednisone, Prednisolone, Methylprednisolone (oral). Treatment not ongoing, routine course of treatment stopped before initiating trial.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6748

CSU disease activity band shift after long-term treatment with remibrutinib in the Phase 3 REMIX-1 & REMIX-2 studies

Martin Metz*[1, 2], Ana M. Giménez-Arnau[3], Petra Staubach[4], Marta Ferrer Puga[5], Kanokvalai Kulthanan[6], Xing-Hua Gao[7], Karine Lheritier[8], Christine-Elke Ortmann[8], Nadine Chapman-Rothe[8], Sibylle Haemmerle[8], Atsushi Fukunaga[9], Michihiro Hide[10]

[1]Urticaria Center of Reference and Excellence (UCARE), Institute of Allergology, Charité – Universitätsmedizin Berlin, corporate member of Freie Universität Berlin, Humboldt-Universität zu Berlin, and Berlin Institute of Health, Berlin, Germany, [2]Fraunhofer Institute for Translational Medicine and Pharmacology ITMP, Immunology and Allergology, Berlin, Germany, [3]Department of Dermatology, Hospital del Mar and Research Institute, Universitat Pompeu Fabra, Barcelona, Spain, [4]Department of Dermatology, University Medical Center, Mainz, Germany, [5]Department of Allergy and Clinical Immunology, Clinica Universidad de Navarra, Pio XII, 36, 31008 Pamplona, Spain, [6]Department of Dermatology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand, [7]Department of Dermatology, The First Hospital of China Medical University, National Health Commission Key Laboratory of Immunodermatology, Key Laboratory of Immunodermatology of Ministry of Education, Shenyang, China, [8]Novartis Pharma AG, Basel, Switzerland, [9]Department of Dermatology, Division of Medicine for Function and Morphology of Sensory Organs, Faculty of Medicine, Osaka Medical and Pharmaceutical University, Takatsuki-city, Osaka, Japan, [10]Department of Dermatology, Hiroshima City Hiroshima Citizens Hospital, Hiroshima, Japan

Introduction & Objectives:

Chronic spontaneous urticaria (CSU) is characterized by the spontaneous occurrence of itchy wheals and/or angioedema lasting ≥6 weeks. Remibrutinib, a novel, oral, highly selective Bruton's tyrosine kinase inhibitor, has previously shown superior efficacy vs placebo at Week 12 and favourable safety in the 24-week double-blind (DB) period of the pivotal Phase 3 studies (REMIX-1 and REMIX-2) in patients with CSU inadequately controlled by H1-antihistamines. The objective of this analysis was to explore the shift in weekly Urticaria Activity Score (UAS7) bands after treatment with remibrutinib vs placebo in the REMIX studies.

Materials & Methods:

In the REMIX-1 and REMIX-2 studies, patients with CSU were randomized 2:1 to oral remibrutinib 25 mg twice daily (bid) or placebo over a 24-week DB treatment period, followed by 28 weeks of open-label treatment with remibrutinib 25 mg bid (patients on placebo transitioned to remibrutinib at Week 24). CSU disease activity bands are defined by five standard UAS7 ranges: UAS7:28–42 (severe), UAS7:16–<28 (moderate), UAS7:>6–<16 (mild), UAS7:>0–6 (well-controlled), and UAS7=0 (complete response). This post hoc analysis assessed the proportion of patients who experienced a shift in CSU disease activity from baseline to Week 52 after treatment.

Results:

This pooled analysis included 606 patients from the remibrutinib and 306 from placebo arms. At baseline, 215 (35.5%) and 386 (63.7%) patients from remibrutinib and 122 (39.9%) and 181 (59.2%) from placebo arm had moderate and severe CSU disease activity, respectively. Overall, patients treated with remibrutinib (vs placebo) experienced substantial improvements in CSU disease activity and moved to a lower disease activity band as early as Week 1 with more patients remaining in lower disease activity bands up to Week 52 **(Table)**. In the remibrutinib treatment arm, 63.7% patients were in the **severe** band at baseline, the number dropped to 24.9%,

17.2%, 9.1%, 7.8%, and 8.1% at Weeks 1, 2, 12, 24 and 52, respectively. Similarly, of the 35.5% of patients in the **moderate** band at baseline, the number dropped to 30.7%, 24.1%, 10.6%, 7.9% and 7.3% at Weeks 1, 2, 12, 24 and 52, respectively. Conversely, proportion of patients in the **mild category** initially increased and then decreased again (reflecting patients moving into more controlled bands) from 0.8% at baseline to 32.5%, 26.2%, 24.4%, 19.6% and 13.7% at Weeks 1, 2, 12, 24 and 52, respectively. There were no patients in the **well-controlled disease** band at baseline; however, the numbers increased from 11.4% and 15.3% at Weeks 1 and 2 to 17.8% at Week 12, followed by 14.9% at Week 24 and 13.4% at Week 52. Notably, proportion of patients who showed **complete response** increased from 0.3% at Week 1 to 16.2% at Week 2, followed by 28.5% at Week 12, 33.7% at Week 24 and 35.1% at Week 52. At the end of Week 52, patients who switched to remibrutinib after the DB period from placebo reached similar band shifts **(Table)**.

Conclusion:

Remibrutinib reduced CSU disease activity as early as Week 1 in patients with CSU, and the fast response was sustained over the long-term (52 weeks) treatment. Of note, treatment switch from placebo to remibrutinib resulted in similar proportion of patients remaining in the complete response band by Week 52.

Table. Disease activity band shift from baseline to Week 52 in the Phase 3 REMIX-1 and REMIX-2 studies (Full analysis set; observed data)

	CSU disease activity bands											
	Severe		Moderate		Mild		Well-controlled		Complete response		Missing	
	Remibrutinib 25 mg	Placebo	Remibrutinib 25 mg	Placebo	Remibrutinib 25 mg	Placebo	Remibrutinib 25 mg	Placebo	Remibrutinib 25 mg	Placebo	Remibrutinib 25 mg	Placebo
Baseline	386 (63.7%)	181 (59.2%)	215 (35.5%)	122 (39.9%)	5 (0.8%)	3 (1.0%)	0	0	0	0	0	0
Week 1	151 (24.9%)	147 (48.0%)	186 (30.7%)	105 (34.3%)	197 (32.5%)	49 (16.0%)	69 (11.4%)	2 (0.7%)	2 (0.3%)	0	1 (0.2%)	3 (1.0%)
Week 2	104 (17.2%)	123 (40.2%)	146 (24.1%)	108 (35.3%)	159 (26.2%)	57 (18.6%)	93 (15.3%)	9 (2.9%)	98 (16.2%)	4 (1.3%)	6 (1.0%)	5 (1.6%)
Week 12	55 (9.1%)	59 (19.3%)	64 (10.6%)	67 (21.9%)	148 (24.4%)	82 (26.8%)	108 (17.8%)	40 (13.1%)	173 (28.5%)	25 (8.2%)	58 (9.6%)	33 (10.8%)
Week 24	47 (7.8%)	45 (14.7%)	48 (7.9%)	61 (19.9%)	119 (19.6%)	63 (20.6%)	90 (14.9%)	35 (11.4%)	204 (33.7%)	52 (17.0%)	98 (16.2%)	50 (16.3%)
	Remibrutinib 25 mg	Placebo–remibrutinib 25 mg[a]	Remibrutinib 25 mg	Placebo–remibrutinib 25 mg[a]	Remibrutinib 25 mg	Placebo–remibrutinib 25 mg[a]	Remibrutinib 25 mg	Placebo–remibrutinib 25 mg[a]	Remibrutinib 25 mg	Placebo–remibrutinib 25 mg[a]	Remibrutinib 25 mg	Placebo–remibrutinib 25 mg[a]
Week 52	49 (8.1%)	14 (4.6%)	44 (7.3%)	22 (7.2%)	83 (13.7%)	47 (15.4%)	81 (13.4%)	47 (15.4%)	213 (35.1%)	96 (31.4%)	136 (22.4%)	80 (26.1%)

[a]Patients who transitioned from placebo in the double-blind treatment period to open-label remibrutinib 25 mg bid at Week 24.
CSU, chronic spontaneous urticaria

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6768

Appropriate treatment escalation improves disease control in patients with chronic spontaneous urticaria: Results from the Chronic Urticaria Registry (CURE)

Pavel Kolkhir[1, 2], Pascale Salameh[1, 2, 3, 4, 5], Alicja Kasperska-Zajac[6], Magdalena Zajac[6], Ana Giménez-Arnau[7], Hanna Bonnekoh[1, 2], Carolina Vera Ayala[1, 2], Michael Makris[8], Kanokvalai Kulthanan[9], Andrea Bauer[10], Mojca Bizjak[11, 12], Daria Fomina[13, 14, 15], Alexis Bocquet[16], Joachim Dissemond[17], Mohamed Abuzakouk[18], Tara Raftery[19], Nadine Chapman-Rothe[20], Emek Kocatürk Göncü[1, 2, 21], Clive Grattan[22], Riccardo Asero[23], Jonny Peter[24, 25], Marcus Maurer[1, 2], Karsten Weller[1, 2]

[1]Charité – Universitätsmedizin Berlin, Institute of Allergology, Berlin, Germany,[2]Fraunhofer Institute for Translational Medicine and Pharmacology ITMP,, Immunology and Allergology, Berlin, Germany, [3]Lebanese American University, School of Medicine, Byblos, Lebanon, [4]Institut National de Santé Publique d'Épidémiologie, Clinique et de Toxicologie-Liban (INSPECT-LB) , Beirut, Lebanon, [5]University of Nicosia Medical School, Department of Primary Care and Population Health, Nicosia, Cyprus, [6]Medical University of Silesia, European Center for Diagnosis and Treatment of Urticaria, Zabrze, Poland, [7]Universitat Pompeu Fabra, Department de Dermatology, Hospital del Mar Research Institute, Barcelona, Spain, [8]National and Kapodistrian University of Athens, University General Hospital 'Attikon', Allergy Unit, 2nd Dpt. Dermatology and Venereology, Athens, Greece, [9]Mahidol University, Department of Dermatology, Faculty of Medicine Siriraj Hospital, Bangkok, Thailand, [10]Technical University, Department of Dermatology, University Allergy Center, University Hospital Carl Gustav Carus, Dresden, Germany, [11]University Clinic of Respiratory and Allergic Diseases Golnik, Division of Allergy, Golnik, Slovenia, [12]University of Maribor, Faculty of Medicine, Maribor, Slovenia,[13]City Clinical Hospital 52, Moscow Clinical and Research Center of Allergology and Immunology, Moscow Healthcare Department,, Moscow, Russian Federation, [14]I.M. Sechenov First Moscow State Medical University (Sechenov University), Department of Clinical Immunology and Allergology, Moscow, Russian Federation, [15]Astana Medical University, Department of Pulmonology, Astana, Kazakhstan, [16]Grenoble University Hospital, Univ. Grenoble Alpes, Internal medicine department, French national reference center for angioedema (CREAK), Grenoble, France, [17]University of Essen, Department of Dermatology, Venerology and Allergology, Essen, Germany, [18]Cleveland Clinic Abu Dhabi, Division Chair, Allergy & Immunology, Abu Dhabi, United Arab Emirates, [19]Novartis Ireland Ltd., Dublin, Ireland, [20]Novartis Pharma AG, Basel, Switzerland, [21]Koç University School of Medicine , Department of Dermatology, Istanbul, Türkiye, [22]St John's Institute of Dermatology, Guy's and St Thomas' Hospital, London, United Kingdom,[23]Clinica San Carlo, Ambulatorio di Allergologia, Paderno Dugnano, Italy, [24]University of Cape Town Lung Institute, Allergy and Immunology unit, Cape Town, South Africa, [25]University of Cape Town, Division of Allergy and Clinical Immunology, Cape Town, South Africa

Introduction & Objectives:

Chronic spontaneous urticaria (CSU) presents as itchy wheals, angioedema or both for >6 weeks. International guidelines recommend second-generation H1-antihistamines (sgAH) as first-line treatment for CSU, followed by omalizumab and ciclosporin. The objective of this analysis was to describe treatment patterns, clinical outcome, and response to treatment changes.

Materials & Methods:

Baseline (BL) and follow-up (FU) data was collected from the international, multicentre Chronic Urticaria Registry

(CURE). Assessments included demographics, clinical characteristics and Urticaria Control Test (UCT). Treatment patterns and outcomes were assessed in patients on no treatment or the guideline recommended therapies with licensed dose sgAH, updosed sgAH (up to 4 times the licensed dose), omalizumab (sgAH permitted). Insufficiently controlled, well controlled and completely controlled CSU at BL and FU were defined as UCT <12, 12-15 and 16, respectively. Response to treatment was assessed as UCT changes from BL to FU: Complete (CR) and partial response (PR) to treatment was defined as UCT=16 and UCT=12-15 at FU, respectively, with ≥3 point increase from BL. Insufficient response (IR) was defined as UCT <12 at FU. Plateau was defined as reaching a UCT ≥12 at FU through a change of less than 3 points.

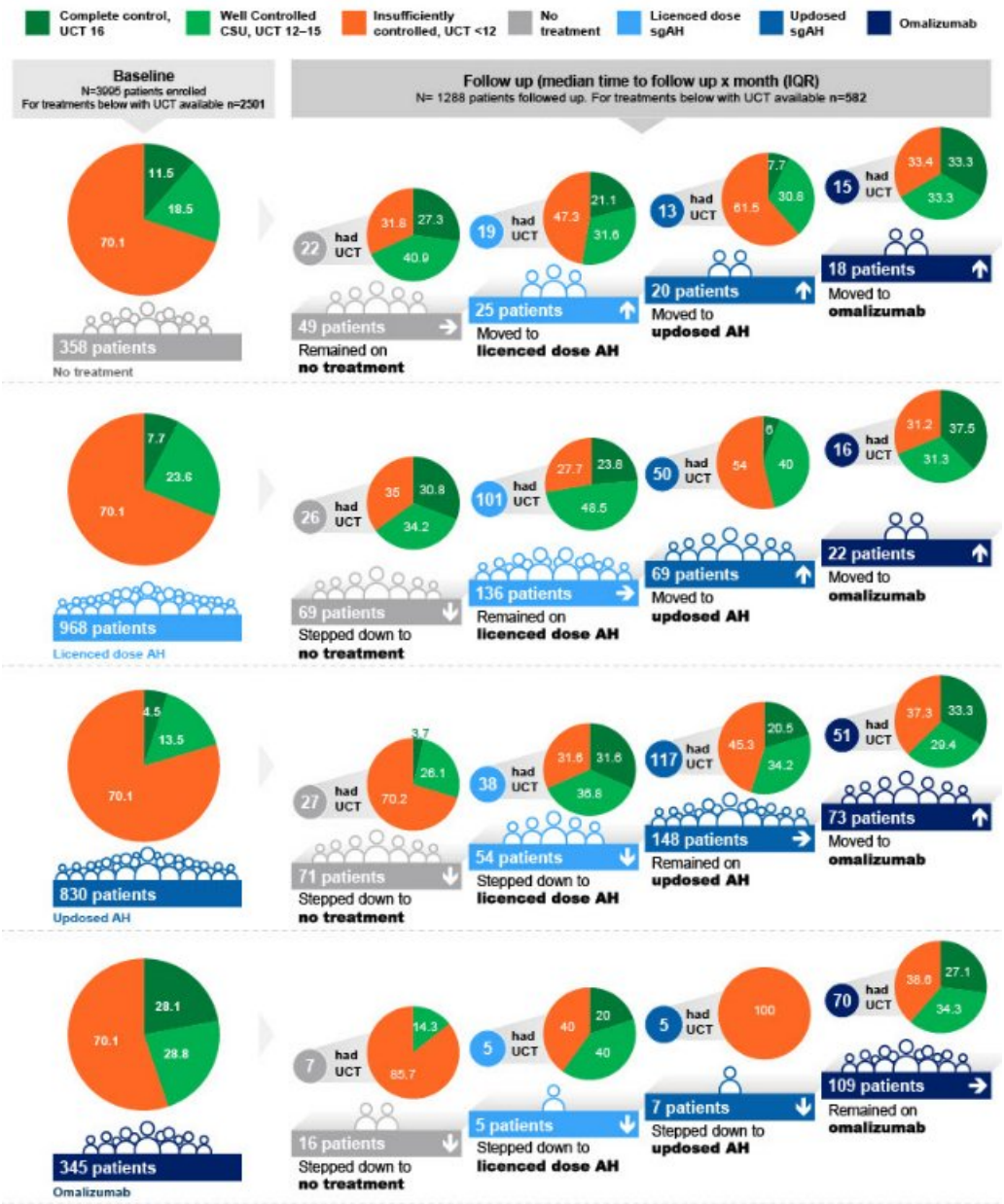
Results:

Baseline data was available in 3995 adult CSU patients [73% female, median (IQR) with age 44 (33-57) years and disease duration 2.3 (0.8-6.8) years]. The median (IQR) intervall between BL and FU was 6 (5-9) months. At baseline 13.5% were on no treatment, 32.5% on licensed dose sgAH, 27.2% on up-dosed sgAH, 11.4% on omalizumab, 0.6 % on ciclosporin and 13.7% were on "other" treatments outside the recommended guideline algorithm. Compared to BL, overall use of sgAH at FU was lower (59.7% vs. 42.2%) and overall use of omalizumab at FU was higher (11.4% vs. 20.7%), and the proportion of patients achieving well and completely controlled disease increased (Fig.1). From BL to FU 45.2% of patients on licensed dose sgAH remained on this treatment, 45.7% of patients on updosed sgAH remained on this treatment, and 71.2% of patients on omalizumab remained on the same. Escalating from licensed dose to up-dosed sgAH (n=50) resulted in 6% of patients achieving CR, 30% PR, 10% plateau, and 54% IR. Escalating from licensed dose sgAH to omalizumab (n=16) resulted in 25% CR, 31% PR, 13% plateau, and 31% IR. Escalating from up-dosed sgAH to omalizumab (n=51) resulted in 29% CR, 29% PR, 4% plateau, and 37% IR.

Conclusion:

Many patients required treatment escalation from BL to FU. Among patients who had an up-dosing of their sgAH, the majority did not respond sufficiently. Escalation to omalizumab was effective in up to two-thirds of patients and omalizumab treatment had a high treatment persistence observed at FU. Additional analysis of patients on no treatment and treatments outside the guideline recommendations is required.

Figure 1: Baseline UCT per treatment group, treatment switches and follow up UCT values



Patients with available follow-up data exhibit comparable baseline characteristics to the overall population with baseline features.
AH, antihistamine, UCT; urticaria control test, sg, second generation. **sgAH licensed dose**: Only patients with a monotherapy are included in this group, **Updosed sgAH**: dose not exceed fourfold the licensed dose, can be a combination of sgAH. **Omalizumab**: additional sgAHs are possible in licensed or high dose.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6806

A retrospective analysis of factors influencing response to omalizumab treatment in Indian patients with antihistamine refractory chronic spontaneous urticaria

Prarthana Thammannagowda*[1], Hitaishi Mehta[1], Anuradha Bishnoi[1], Davinder Parsad[1], Muthu Sendhil Kumaran[1]

[1]Pgi Chandigarh, Dermatology, Venereology and Leprology, Chandigarh, India

Introduction & Objectives: Chronic spontaneous urticaria (CSU) presents as a persistent and distressing condition, with varying treatment responses. Omalizumab, a monoclonal anti-IgE antibody, has shown efficacy in managing anti-histamine (AH1) refractory CSU, but its varied response patterns and associated factors remain understudied, particularly in India. The aim of this study was to analyze the response patterns to omalizumab in Indian patients with chronic spontaneous urticaria (CSU), with a focus on understanding the factors associated with varied responses.

Materials & Methods: We conducted a retrospective study involving 81 anti-histamine resistant CSU patients treated with omalizumab at a tertiary care center in Northern India between 2018 and 2023. Baseline characteristics, treatment response, and adverse effects were analyzed. Patients were categorized into various response groups based on treatment timelines and biomarker correlations.

Results: We observed 65% achieved symptom cessation (Group 1) following a single omalizumab dose, while 21% responded between 2nd and 3rd doses (Group 2). A subset (7.4%) necessitated increased dosing frequency (Group 3) for symptom control. Additionally, 6.2% showed persistent symptoms despite increased dosing frequency(Group 4), exhibiting distinctive biomarker profiles indicative of an autoimmune endotype. Notably, 27.1% experienced exacerbations during treatment, emphasizing the need for tailored management approaches and response expectations.

Conclusion: Omalizumab demonstrated remarkable efficacy among treatment of AH1- refractory CSU, with good safety profile. This study highlights the complexity of treatment response to omalizumab and potential utility of biomarkers in guiding personalized therapeutic strategies. Further research into biomarker-based endotypes is warranted to optimize CSU management.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 7599

Current Treatment Practices and Efficacy for Solar Urticaria: Insights from a Patient Survey Study.

Lea Kiefer[1, 2], Dorothea Terhorst[1, 2], Ana Giménez-Arnau[3], Margarida Gonçalo[4], Atsushi Fukunaga[5], Emek Kocatürk[1, 2, 6], Kanokvalai Kulthanan[7], Sheila McSweeney[8], Heike Rockmann[9], Lesley Rhodes[10], Karsten Weller[1, 2], Marcus Maurer[1, 2], Manuel Pereira*[1, 2]

[1]1. Institute of Allergology, Charité – Universitätsmedizin Berlin, Corporate Member of Freie Universität Berlin and Humboldt-Universität zu Berlin, Berlin, Germany, [2]2. Fraunhofer Institute for Translational Medicine and Pharmacology ITMP, Allergology and Immunology, Berlin, Germany, [3]3. Department of Dermatology, Hospital del Mar-Institut d'Investigacions Mèdiques Universitat Pompeu Fabra de Barcelona, Passeig Maritim 25-29, 08003 Barcelona, Spain, [4]4. Department of Dermatology, Coimbra University Hospital and Faculty of Medicine, University of Coimbra, Coimbra, Portugal, [5]5. Department of Dermatology, Osaka Medical and Pharmaceutical University, Osaka, Japan, [6]6. Department of Dermatology, Koç University School of Medicine, Department of Dermatology, Istanbul, Turkey, [7]7. Department of Dermatology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand, [8]8. St. John's Institute of Dermatology, Guy's Hospital, London, UK., [9]9. Department of Dermatology/Allergology, University Medical Centre Utrecht, Heidelberglaan 100, 3584CX Utrecht, Utrecht University, The Netherlands, [10]10. Faculty of Biology, Medicine and Health, University of Manchester, and Dermatology Centre, Salford Royal Hospital, NCA NHS Foundation Trust, Manchester Academic Health Science Centre, Manchester, United Kingdom

Introduction & Objectives:

Solar Urticaria (SolU) constitutes a rare subgroup of chronic inducible urticaria and photodermatoses, presenting with wheal/flare formation accompanied by severe itch, following exposure to light in the triggering action spectrum at the respective skin area. Therapeutic options remain limited for SolU, and there is still little knowledge about the perspective of patients regarding the efficacy of available treatments.

Materials & Methods:

Patients with SolU were asked to complete an electronic questionnaire on their condition and the therapies used between May 2023 and April 2024. The self-reported diagnosis of SolU was based on the clinical presentation and/or provocation tests. Study outcomes included clinical presentation, triggering action spectrum, disease severity, impairment of the quality of life due to SolU, therapies used and their efficacy. The questionnaire was made available in English, Spanish and German.

Results:

A total of 115 patients (females: n=81, median age: 45.5 years) participated in the study. Most patients developed symptoms within 10 minutes after exposure to light (89/115, 77.4%) and evaluated their condition to be severe or extremely severe (72/115, 62.6%). Accordingly, the quality of life was very or extremely impacted in the majority of patients (82/115, 71.3%). First-generation antihistamines were taken by 14 patients (single dose or more than once daily), of which 6 (42.9%) reported a moderate or slight improvement, 6 (42.9%) no change of symptoms and 2 (14.3%) worsening of symptoms. Twenty-five patients used a second-generation antihistamine at standard dose, of which 15 (60%) showed an improvement of symptoms. A higher than standard-dosed second-generation antihistamine was used by 37 patients, with improvement reported by 18 (48.6%). Omalizumab, used at various doses, improved symptoms in 24/27 (88.9%) patients, with 8 (29.6%) showing complete control. Oral

corticosteroids led to an improvement in 10/15 cases (67%), and phototherapy was effective in 10/17 patients (58.8%).

Conclusion:

SolU was considered to be severe, leading to a high impairment of health-related quality of life in most cases. Most therapies including off-label treatments do not result in complete remission of symptoms in the majority of patients. Thus, the development of effective therapies for SolU patients is of utmost importance to achieve a better care of this highly burdened patient population.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 7660

Solar urticaria: rare disease with difficult diagnosis

Graciela Galva Roa*[1], Bruna Marques Da Costa[1], Amanda Periquito[1], Omar Lupi[1]

[1]Policlínica Geral do Rio de Janeiro, Brazil

Introduction & Objectives:

Solar urticaria is a rare subtype of induced chronic urticaria, triggered by exposure to sunlight (visible light, UVA and UVB) most common in females within the third decade. The physiopathology occurs by activation of a photo allergen probably mediated by IgE leading to mast cell degranulation. It can be primary or caused by medications and is commonly associated with other photodermatoses. Hives appear 5 to 10 minutes after exposure, accompanied by itching and/or burning, resolving within 24 hours. Systemic manifestations such as headache, nausea, vomiting, syncope and shock may occur. Situations of intense and prolonged sun exposure can result in serious conditions, developing of systemic symptoms and anaphylaxis. The empirical diagnosis is made by testing some lengths of light through a slide projector lamp (visible light), black or solar fluorescent light (UVA/UVB), or an infrared lamp. As for treatment, in addition to photoprotection, the first line is 2nd generation anti-H1s, at a standard dose, which can be quadrupled. In refractory patients, the addition of omalizumab (off label for ICU) is indicated. Our objective is to present a rare case of solar urticaria with important improvement of quality of life after correct diagnosis.

Materials & Methods:

A comprehensive review of the literature was carried out for this case.

Results:

A 24-year-old female patient of mixed race, reported that for the last 5 years she presents with erythematous plaques, itching and burning after sun exposure, which start after 20 minutes and disappears after around 2 hours. She reported progressive worsening of the condition with sporadic episodes of edema, palpitation, dyspnea and tremor. The provocation test was carried out instructing the patient to stop usage of anti-H1 and corticosteroids in the 7 days prior to the exam. She underwent a physical examination which showed no changes and remained at rest for 30 minutes. After this period, the patient was instructed to wear a cycling sleeve with UVA/UVB protection, isolating the hand, cubital fossa, part of the forearm and arm, which was adapted with a 5 cm^2 opening on the volar surface of the forearm. Subsequently, the lamp attached to a table lamp was directed to the exposed area. The test was positive after 15 minutes, confirming the diagnosis for Solar Urticaria. It was prescribed, in addition to photoprotection, 2nd generation anti-H1s, achieving complete improvement at a quadrupled dose.

Conclusion:

Solar urticaria accounts for only 4% of patients in the United States with photosensitive disorders and worldwide, for 0.5% of all urticaria cases and 7% of photodermatoses. It is important to take into consideration all presenting factors to make an early diagnosis for bettering the patient's quality of life as not being able to be exposed to the sun freely requires major lifestyle adjustments for the patient. For diagnosis the method described has a limitation, as it does not distinguish between UVA, UVB rays and visible light waves. Therefore, characterization between wave spectra and SU is not possible. However, the "Mini Lamp Provocation Test" was able to confirm the SU diagnosis. In case of refractory symptoms with a quadruple dose of antihistamine, the use of omalizumab is indicated. It is extremely important to diagnose the type of urticaria, for correct therapeutic management and

improvement of the patient’s quality of life.