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**BACKGROUND**

Chronic urticaria (CU) is a common and not life-threatening skin disease. Emotional distress is widely thought to cause, drive and/or maintain CU. The objective of this study was to investigate the presence of anxiety, depression, and stress in adult patients with CU and to explore potential impact on urticaria treatment.

**METHODS**

We included 79 patients with CU and a disease control group of 29 patients with persistent asthma. The Hospital Anxiety-Depression Scale (HADS) was used to evaluate depression and anxiety in the outpatient setting. The level of stress by stress response inventory questionnaire and CU-specific quality of life (CU-QoL) were assessed. The Socio-demographic and clinical data such as urticaria activity score (UAC), medications were extracted in patients with CU.

**RESULTS**

HADS score was 12.92 ±6.48 in all subjects with CU, and the prevalence of depression and anxiety based on the HADS were 48.1% and 38.0%, respectively. The prevalence of anxiety was not different when compared with asthma control (38.0% vs 41.0%), but depression was more prevalent in CU patients (48.1% vs 28.2%, P<0.039). Stress level was significantly lower in patients with CU compared to that of asthma (26.64±26.28 vs 42.77±15.46, P<0.001). Although depression and anxiety were not associated with disease duration and treatment status, patients with depression and/or anxiety showed worse CU-QoL with higher stress levels. In addition, anxiety score was significantly correlated with UAS, pruritus visual analogue score, CU-QoL, and stress level (P<0.05).

**CONCLUSION**

Our data confirm that CU patients frequently suffer from emotional distress, especially depression. The parameter of anxiety was associated with poor urticaria control and quality of life in adult CU patients.

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Application of topical peloid-derived humic acid suppresses allergic contact dermatitis in mice model

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**BACKGROUND**

Allergic contact dermatitis (ACD) is a highly prevalent inflammatory disease of the skin caused by an allergic reaction to a substance. The aim of our study was to evaluate the anti-inflammatory activity of a topically applied humic acid (HA) in the treatment of ACD in mice model.

**METHODS**

The source for HA used in this study was the silt sulphide mud, which is used for medicinal purposes.[1,2] Aqueous HA cream (5%) produced by blending appropriate quantities of HA and additional water into emulsifying ointment BP. For induction of ACD-like skin disorders, DNCB was applied onto the BALB/c mouse dorsal skin. Induction of ACD was achieved by topical application of 100 μL 1% DNCB in 4:1 acetone/olive oil solution once daily to the shaved dorsal skin. These procedures were repeated for 3 days and followed by a period of no treatment for 5 days. In the second challenge, mice sensitized with DNCB were treated with HA cream 3 h prior to the application of 0.5% DNCB (days 8–16). Mice in the control group for ACD received vehicle treatment alone without DNCB. Following challenge for 7 days, the mice were sacrificed on day 17 of the experiment.

**RESULTS**

Topical application of HA reduced ACD based on histological analysis and serum IgE levels. HA inhibited mast cell infiltration into the skin tissues...
and serum histamine level. HA suppressed DNCB-induced expression of INF-γ, IL-4, IL-10, IL-13, IL-17 and TNF-α in the ACD tissue. Overall, HA significantly inhibits pathways that lead to inflammatory cell infiltration and the production of inflammatory cytokines in the skin. Thus, HA treatment results in anti-inflammatory effects capable of inhibiting ACD by inducing immunosuppressive responses.

CONCLUSION

HA exhibits anti-inflammatory effects in ACD mice by regulating inflammatory mediators. These results demonstrate that the HA is a promising therapeutic for ACD and provides new insights into the role of humic substances and natural organic matter in the control of cutaneous immune responses potentially relevant to a broad range of allergic and inflammatory skin diseases.

REFERENCES


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Management of Hereditary Angioedema in North Macedonia compared to regional and Western European data

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BACKGROUND

We analyzed the current situation in North Macedonia as compared to other countries in the South East European (SEE) region and we compared our findings with the situation in Germany and other European Union countries and Brazil.

METHODS

A thematic questionnaire was designed and distributed among SEE countries to gather data for the comparison. The percentage of treated acute HAE attacks is: all localizations 65% vs 60% average in other SEE countries. In comparison, the data for Italian patients published in BMJ shows that 78.9% of all HAE attacks were treated. The percentage of treated laryngeal attacks 100% vs 95 average in the other SEE countries: abdominal attacks 65% vs 60% in other SEE countries, peripheral attacks 55% vs 50% in other SEE countries. Time between symptom onset and treatment is 2 hours vs 1.5 hours in other SEE countries.

RESULTS

As compared to Germany, which is recognized as one of the leading countries in healthcare in Europe, and the average in other EU countries, according to the data published in Journal of EADV. In North Macedonia the time between symptom onset and treatment is 2 hours vs 1.3 hours in Germany vs 4.2 hours in other included countries. Time to complete symptom resolution was 9.1 hours vs 7.6 hours in Germany vs 15.1 hours in other included countries. Average attack duration is 12.6 hours vs 8.9 in Germany vs 19.3 hours in other included countries.

CONCLUSION

Although the data for North Macedonia are within the ranges of the SEE region and comparable to Western European countries data, there is still room for improvement, firstly in the education of healthcare professionals. Above all, continuous education of patients and creating a dynamic and active bond between patients and healthcare professionals is crucial for successful HAE management. Reassuring the patients that although HAE is still potentially lethal, serious disease, there are numerous efficient treatments is also a piece of this mosaic lessening the burden of HAE not only for the patients and their families but for the medical professionals treating HAE patients as well.