Urticaria

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Definition

Urticaria (ICD 10: L50.8 – possibly F54) is divided into several subtypes (e.g. acute, chronic, physical, and autoimmune urticaria) and represents one of the most frequent skin diseases. The traditional definition of chronic urticaria is the occurrence of daily or almost daily hives for more than 6 weeks, in contrast to acute urticaria which disappears within less than 6 weeks. Physical urticarias, such as pressure and cold urticaria, or urticaria factitia also frequently occur concurrently with chronic urticaria. In addition, urticaria is associated in about 40% with angioedema. In general, hives persist less than 24 h, whereas in urticaria vasculitis, which in former times was included in urticaria subtypes due to historical reasons, hives persist more than 24 h.

The trigger factors for urticaria are manifold. In more than 80% of cases urticaria is triggered by an inflammatory focus, a subclinical infection, or autoimmune actions. Additionally, non-specific pharmacological or toxin-mediated release of inflammatory mediators of basophils and mast cells can trigger urticaria. Psychodermatologically, chronic urticaria is seen as a multifactorial dermatologic disorder which can be substantially influenced by psychological factors [Schneider and Gieler, 2001].

Various studies report an association between stress, anxiety, or depressive symptoms and chronic urticaria [Sheehan-Dare et al., 1990; Brahler et al., 1994], however, not assuming a causality as reviewed recently [Buffet, 2003]. In daily practice, however, stress is an important trigger factor for urticaria. Urticaria symptoms affect everyday life, limiting and impairing physical and emotional functioning, and act as an indirect burden on life satisfaction underlining the major impact on quality of life [Baiardini et al., 2003]. With regard to the subtype of urticaria the impact on quality of life is different, as physical urticaria such as delayed pressure urticaria was shown to have a higher impact with decreased quality of life than other types [O'Donnell et al., 1997].

Dermatological Diagnostics

The clinical assessment of urticaria includes taking the patient's history as well as physical examination. Urticaria is divided into the acute (symptoms less than 6 weeks) and the chronic type (symptoms more than 6 weeks), which is identifiable by exact acquisition of data on urticaria symptoms. For the detection of specific trigger factors, such as pressure, cold contact, or autoimmune interactions, specific tests, e.g. pressure test, cold arm bath, cold-cylinder test, and/or autologous serum skin test, are recommended [Raap et al., 2004]. As more than 80% of chronic urticarias are triggered by chronic infections or subclinical foci specific laboratory tests are helpful: e.g. CRP (c-reactive protein), differential hemogram, serology for *streptococcus*, *staphylococcus*, and *yersinia*, careful testing for *helicobacter pylori* infection, and autologous serum skin test [Wedi et al., 2004]. In acute urticaria however, no specific dermatological investigations are recommended, as acute urticaria generally disappears within less than 6 weeks. As urticaria is often triggered by non-specific pharmacological inflammatory mediators avoidance of drugs such as acetylsalicylic acid is recommended, as they can elicit urticaria as well as aggravate pre-existing chronic urticaria [Wedi et al., 2000]. Moreover, avoidance or elimination of the eliciting stimulus (e.g. cold contact in cold urticaria) is recommended in urticaria management.

Psychosomatic Diagnostics

There are only few studies dealing with quality of life in urticaria. However, recently the dermatology life quality index (DLQI) was found to be valid, reliable, and a clinically useful outcome measure for assessing quality of life in patients with chronic urticaria [Lennox and Leahy, 2004].

In a multicenter study performed in 1996 by Hein et al. 100 patients with chronic urticaria were examined with a stan-

dardized personality test (Gießen test), a standardized symptom questionnaire (Gießener Beschwerdebogen) and a specially developed questionnaire assessing symptoms, history and behavior during symptomatic periods. It was shown that one third of the patients had elevated scores both for depression and for symptoms that often are associated with depression. Even though the study does not allow a classification of chronic urticaria as a somatization disorder the authors suggest a specific examination of the patients and possibly a treatment with psychosomatic methods [Hein et al., 1996].

Coping

Especially the recurrent symptoms of chronic urticaria have a profound impact on psychosocial burden of the patients. In a psychological assessment it was shown that urticaria patients had significantly higher scores on the scales of somatization, obsessive-compulsive behavior, interpersonal sensitivity, depression, and anxiety than controls [Sperber et al., 1989]. In this study urticaria patients were quite anxious and experienced significant discomfort in interpersonal relationships. Therefore, adjunctive treatment of urticaria patients is suggested to focus primarily on stress management training aimed at relieving anxiety and group therapy which focuses on an exploration of interpersonal issues. However, it remains open if the feeling of stigmatization in patients with chronic urticaria is comparable to the burden of skin disease in patients with psoriasis and atopic dermatitis [Schmid-Ott et al., 2003].

Therapy

Dermatological Therapy

Basic therapeutic principles of chronic, physical, or autoimmune urticaria are the eradication of infectious trigger foci such as infections with *helicobacter pylori*, *staphylococcus*, or *streptococcus* [Wedi et al., 1998]. For the first-line therapy for urticaria symptoms non-sedating antihistamines of the newer generation are recommended [Raap et al., 2004]. The effects of antihistamines are dose-dependent [Zuberbier et al., 1996]. Therefore, if a single dosage of antihistamine is not successful for treatment of urticaria symptoms, a higher dosage – which in general is well tolerated by the patients – is recommended, instead of starting with immunosuppressive drugs first. However, the patient has to be informed about possible sedating properties of the increased dosage of antihistamines and also the patient's risk-profile e.g. cardiovascular diseases should be checked carefully.

In some subtypes of urticaria specific drugs are helpful in treatment, such as daspone in pressure urticaria, chloroquine

in autoimmune urticaria, and penicilline in cold contact urticaria [Raap et al., 2004]. In acute urticaria, which is often induced by an acute infection, symptomatic treatment with antihistamines is often sufficient as the symptoms disappear within days.

Psychosomatic Therapy/Care

A good relationship between the patient and the doctor is helpful for psychosomatically oriented conversations. The aim of such conversations is to identify several foci such as psychosomatic problems, which when worked out occasionally lead to an improvement of urticaria symptoms [Rechenberger, 1976]. In a study performed by Augustin et al. urticaria patients showed significantly elevated psychological stress and higher motivation for psychosocial support than patients with insect venom allergies and drug intolerance, suggesting a pivotal role for psychosocial interactions [Augustin et al., 1999]. On the one hand, the role of psychological factors in the onset and/or the aggravation of the disease is estimated differently by several authors, generally based on retrospective studies and without consensus between the authors. On the other hand, the disease is thought to have a psychosocial impact on 30–40% of the patients [Consoli, 2003].

However, until now no study is published on psychological support and psychotherapies in urticaria patients [Buffet, 2003]. Also, prospective studies on the impact of an adapted psychological treatment on chronic urticaria evolution are currently not available.

Indications for Psychotherapy

In a study performed by Zachariae et al. psychological symptoms and health-related quality of life of dermatologic patients and controls was investigated [Zachariae et al., 2004]. Even though it was shown in this study that urticaria patients were less distressed than patients with atopic dermatitis or psoriasis it is important to recognize disease-related psychological problems and possible psychiatric comorbidity also in urticaria patients which reveal possible indications for psychotherapeutic support.

Relaxation, Psychosomatic or Psychoanalytic and Behavior Therapy

Two case studies describe a psychodynamic treatment for urticaria patients [Brosig et al., 2000; Hashiro, 1995]. However, no studies on psychological support, psychotherapies, behavioral therapies, biofeedback techniques and group therapies have been published so far for urticaria treatment [Buffet, 2003]. Still, a complementary psychological treatment in a subgroup of patients with chronic urticaria and a high frequency of psychological symptoms such as increased anxiety might be helpful [Sperber et al., 1989].

References

- Augustin M, Zschocke I, Koch A, Schopf E, Czech W: Psychological status and motivation for psychosocial intervention in patients with allergic disorders. *Hautarzt* 1999;50:422–427.
- Baiardini I, Giardini A, Pasquali M, Dignetti P, Guerra L, Specchia C, Braido F, Majani G, Canonica GW: Quality of life and patients' satisfaction in chronic urticaria and respiratory allergy. *Allergy* 2003;58:621–623.
- Brosig B, Niemeier V, Kupfer J, Gieler U: Urticaria and the recall of a sexual trauma. *Dermatol Psychosom* 2000;1:72–75.
- Brahler C, Brosig B, Kupfer J, Brahler E: Sick role and psychoimmunologic parameters during the course of treatment – a quantitative single case analysis of urticaria. *Psychother Psychosom Med Psychol* 1994;44:323–330.
- Buffet M: Management of psychologic factors in chronic urticaria. When and how? *Ann Dermatol Venereol* 2003;130 (Spec 1):1S145–1S159.
- Consoli SG: Psychological factors in chronic urticaria. *Ann Dermatol Venereol* 2003;130 (Spec 1):1S73–1S77.
- Hashiro M: Psychosomatic treatment of a case of chronic urticaria. *J Dermatol* 1995;22:686–689.
- Hein UR, Henz BM, Hausteil UF, Seikowski K, Aberer W, Lautenschlager S, Klapp BF: Correlation between chronic urticaria and depression/somatization disorder. *Hautarzt* 1996;47:20–23.
- Lennox RD, Leahy MJ: Validation of the Dermatology Life Quality Index as an outcome measure for urticaria-related quality of life. *Ann Allergy Asthma Immunol* 2004;93:142–146.
- O'Donnell BF, Lawlor F, Simpson J, Morgan M, Greaves MW: The impact of chronic urticaria on the quality of life. *Br J Dermatol* 1997;136:197–201.
- Raap U, Liekenbrocker T, Wiczorek D, Kapp A, Wedi B: New therapeutic strategies for the different subtypes of urticaria. *Hautarzt* 2004;55:361–366.
- Rechenberger I: Tiefenpsychologisch ausgelegte Diagnostik und Therapie von Hautkrankheiten. Göttingen, Verlag für Psychologische Medizin, 1976, pp 64–77.
- Schmid-Ott G, Burchard R, Niederauer HH, Lamprecht F, Kunsebeck HW: Stigmatization and quality of life of patients with psoriasis and atopic dermatitis. *Hautarzt* 2003;54:852–857.
- Schneider G, Gieler U: Psychosomatic dermatology – state of the art. *Z Psychosom Med Psychother* 2001;47:307–31.
- Sheehan-Dare RA, Henderson MJ, Cotterill JA: Anxiety and depression in patients with chronic urticaria and generalized pruritus. *Br J Dermatol* 1990;123:769–774.
- Sperber J, Shaw J, Bruce S: Psychological components and the role of adjunct interventions in chronic idiopathic urticaria. *Psychother Psychosom* 1989;51:135–141.
- Wedi B, Wagner S, Werfel T, Manns MP, Kapp A: Prevalence of *Helicobacter pylori*-associated gastritis in chronic urticaria. *Int Arch Allergy Immunol* 1998;116:288–294.
- Wedi B, Novacovic V, Koerner M, Kapp A: Chronic urticaria serum induces histamine release, leukotriene production, and basophil CD63 surface expression – inhibitory effects of anti-inflammatory drugs. *J Allergy Clin Immunol* 2000;105:552–560.
- Wedi B, Raap U, Kapp A: Chronic urticaria and infections. *Curr Opin Allergy Clin Immunol* 2004;4:387–396.
- Zachariae R, Zachariae C, Ibsen HH, Mortensen JT, Wulf HC: Psychological symptoms and quality of life of dermatology outpatients and hospitalized dermatology patients. *Acta Derm Venereol* 2004;84:205–212.
- Zuberbier T, Munzberger C, Hausteil U, Trippas E, Burtin B, Mariz SD, Henz BM: Double-blind crossover study of high-dose cetirizine in cholinergic urticaria. *Dermatology* 1996;193:324–327.