

Quality of life in patients with urticaria

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ABSTRACT

Patients with chronic urticaria have a poor quality of life (QOL). Chronic pruritus with variable appearance of urticaria and/or angioedema are typical of the uncertainty that compromise their QOL. Other issues such as fatigue, cost of therapy, and social isolation further contribute to the frustration that patients experience. Various instruments are available to measure the quality of life of patients with urticaria and can be adjunctive in the continued assessment of patients with this variable condition. In comparison with other dermatological and medical conditions, patients with chronic urticaria have a significantly worse QOL. (Allergy Asthma Proc 27:96–99, 2006)

Urticaria may affect upward of 15% of the population at some time in their lives.¹ Most health care providers recognize that urticaria and angioedema often are difficult to treat. However, many do not realize the impact that chronic urticaria (CU) and angioedema have on the patient's quality of life (QOL). Some patients with CU have their life compromised to the extent of patients awaiting to have coronary artery bypass surgery.² Although counting hives may be one method of determining response to therapy, it only provides a static measurement of an otherwise dynamic disease process. Daily variability in the intensity and frequency of urticaria as well as the patient's perception as to how the disease affects their QOL is one reason to use surveys in assessment of urticaria.³

ISSUES TO CONSIDER

Patients with urticaria and/or angioedema have other considerations other than the discomfort of itching. Their pruritus may disturb their sleep cycle and predispose them to other factors defined in QOL studies. Such complaints include fatigue due to antihistamines^{4–6} and because of lack of quality sleep (due to medication⁷ and pruritus⁸), recurrent pain syndromes (tension headaches and fibromyalgia-like pain⁹), and

insomnia¹⁰ (from constant pruritus) causing psychiatric symptoms (irritability, depression, and anxiety) to develop. In many patients, issues in QOL may overlap those arising from other atopic diseases (eczema, rhinoconjunctivitis, and asthma).

Many patients find that they are unable to afford medications that would otherwise effectively manage their CU. Managed care organizations may be unwilling to pay for non- or less-sedating antihistamines and thus shift the financial burden to the patient consumer. Because of the costs of the medications not covered by managed care, patients may not be able to obtain them and thus be in a similar situation as asthmatic patients who are unable to afford their medications.¹¹ The costs of treatment for atopic dermatitis (AD) exemplify the dilemma that patients with concurrent skin disorders of urticaria (odds ratio of 2.4) and pruritus (5.4 odds ratio) have in dealing with skin disorders.¹² Pressure on physicians by frustrated patients to find a reason for their urticaria and/or angioedema may lead clinicians to inappropriate and expensive testing or referrals to inexperienced and controversial providers. The patient becomes frustrated and angry that the physician is unable to define an etiology in an otherwise idiopathic condition.

STUDIES AVAILABLE TO DEFINE QOL

Several studies are available to define QOL in patients with dermatologic and other chronic conditions. Researchers define health-related QOL as a patient's assessment of their current level of functioning and/or satisfaction with their condition as well as what they perceive as ideal. Surveys are used in clinical trials, health care audits, and by clinicians to determine benefits of care. Many factors play a role in the type of survey that is appropriate for a specific medical condition.¹³

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Table 1 Areas Addressed by the DLQI

Lesions feel itchy, sore, or painful
Lesions causing embarrassment
Interference with shopping, yard work,
or housekeeping
Lesions influencing decisions on clothing
Social leisure affected
Skin causing difficulty with sporting activities
Difficulties with work or studying
Problems with partner, friends, or relatives
Sexual difficulties
Treatment causing problems with home life

Source: Ref. 16.

The VQ-Dermato is a French multidimensional instrument used for measuring health-related QOL in chronic skin disorders. In a prospective study of 1356 adult patients with either CU, psoriasis, or AD, the physical discomfort associated with CU and AD was greater than that of psoriasis ($p < 0.001$). Daily living restrictions were greater in CU and AD than psoriasis ($p < 0.001$). Patients' self-perception and treatment-induced restrictions were less in CU compared with psoriasis and AD ($p < 0.001$).¹⁴

Reviews of published references for SF-36 and a satisfaction profile were used to compare patients with respiratory allergy, CU, and healthy control subjects. In this study, patients with CU had significantly lower scores (or worse QOL) for all SF-36 domains compared with normal subjects ($p < 0.0001$), physical functioning compared with respiratory allergy ($p = 0.046$), emotional functioning compared with respiratory allergy ($p = 0.04$), bodily pain compared with respiratory allergy ($p = 0.0001$), and worse general health compared with respiratory allergy ($p = 0.0043$).¹⁵

The most commonly used and practical survey for patients with dermatologic conditions is the dermatology life quality index (DLQI). Because CU is subject to daily and weekly fluctuations that could influence the validity of some QOL surveys, the DLQI is suited to reflect the patient's assessment of their urticaria. In 130 studies, it has established acceptable internal consistency, distributional sensitivity, and test-retest reliability. Questions in the DLQI address several areas that affect patients with chronic idiopathic urticaria and reflect the previous week's disease activity. Particular areas that are addressed are listed in Table 1. Confirmatory factor analysis tested the unidimensionality of the 10-item scale with a goodness-of-fit index of 0.89. All other measurements indicate that the total score of the 10-item scale can be interpreted as a global score for a patient's assessment of their QOL.¹⁶

In patients with CU, comparisons were made amid different physical urticarias using the DLQI. Patients with chronic idiopathic urticaria but without physical urticaria suffered moderate impairment of QOL with a score of 25 ($\pm 24\%$) on DLQI. Higher scores were obtained in patients with delayed pressure urticaria (score of 43) and cholinergic urticaria (score of 50). For patients with delayed pressure urticaria, the greatest disabilities were in work/study ($p < 0.001$) as well as leisure/sports ($p = 0.008$ each). Patients with cholinergic urticaria were most likely affected by sporting/leisure activities (score of 70) and were the only group to be restricted in sexual activities. Interestingly, patients with urticarial vasculitis scored the average (9 ± 20) of all patients.¹⁷

Using the DLQI, patients with CU had worse scores when compared with psoriasis, acne, Behcet's syndrome, and vitiligo.¹⁷ Patients with cholinergic urticaria and delayed pressure urticaria were comparable in mean DLQI scores of patients with severe AD.¹⁸ Although a mean visual analog scale (VAS) rating showed no significant differences between patients with atopic eczema and CU, using the total Eppendorf itch questionnaire, patients with atopic eczema scored higher than those with CU (231.7 versus 75.1, respectively).¹⁹

In children, the pediatric allergic disease QOL questionnaire was developed to provide a multiorgan system analysis of QOL. The VAS and two-organ-specific questionnaires provide a high degree of correlation as measured by symptom scores with good cross-sectional and longitudinal validity. In this study, children's responses were rated by scores equated with happy to sad faces on VAS as well as responses obtained without the aid of their parents. In children allergic to grass, those with rashes on their skin rated a severity score of 3.14 (third worst condition) with concentration difficulties and the need to rub their eyes scoring worse on the 26-item questionnaire. Itchy skin was rated the worst overall symptom by children with seasonal allergies.³

Similarly, other studies have evaluated interference with patients' QOL. The Nottingham health profile shows restrictions in areas of mobility, sleep, energy as well as pain, social isolation, and altered emotional reactions in part I. Part II of the Nottingham health profile defined perceived difficulties in work, home upkeep, social life, hobbies, relationships, and holiday enjoyment. As expected, patients with CU were significantly compromised.² In a different approach, the CU-QOL survey was developed by initially assessing 39 items on a questionnaire and then defining the 22 most significant items to develop a final survey. Items showed good reliability amid variables for pruritus, swelling, impact on

Table 2 Resources for QOL Surveys

Survey	Summary of Survey	Reference
DLQI	Assesses disease activity over a period of 1 week; 10 questions make survey reasonable for patients in one sitting	16
CU-QOL questionnaire	Relatively new tool based on most frequent complaints of patients with chronic idiopathic urticaria	20
Medical Outcomes Survey Short Form - SF-36	Evaluates functional status, well-being, and overall evaluation of health http://www.rand.org/health/surveys/sf36item/question.html Web site for SF-36	24
VQ-Dermato	French survey assessing health-related QOL issues in dermatology	14
Pediatric allergic disease QOL questionnaire	Multiorgan survey using VASs and responses obtained independent of parental influence http://www.atsqol.org/qinst.asp Wide variety of health surveys for asthma, rhinoconjunctivitis, and other pulmonary conditions http://www.proqolid.org/ European databank with surveys for purchase	3

life activities, sleep problems, embarrassment, and limitations.²⁰

PHARMACEUTICAL USE OF QOL SURVEYS

In defining benefits of antihistamines in the management of urticaria, pharmaceutical companies have used QOL surveys. Fexofenadine was shown over several dosages to be effective in improving QOL in patients with chronic idiopathic urticaria. Patients assessed the severity of their pruritus, number of wheals, and interference with sleep and normal activities. QOL for all dosages was improved with fexofenadine relative to placebo ($p < 0.0001$).²¹ Using the DLQI, desloratadine was shown to decrease the severity of disturbances in sleep and daily activities caused by CU.^{22,23}

CONCLUSION

Patients with CU typically are assessed by appearance of their hives and/or angioedema as well as the responsiveness to medications. Newer studies are now available to assess the patient's QOL and can provide health care providers further insight into the response that patients have to therapy. QOL surveys also provide feedback over a longer time course rather than the in-office appearance a patient may have with their urticaria. Table 2 lists some of the resources available to assess QOL in patients with urticaria. The DLQI is one example of a survey that can provide long-term information that can be used in a patient's evaluation. Similar to objective measurements of airflow in asthmatic patients, symptom scores such as the Asthma Control Test can help define longer-term assessments of con-

trol. Likewise, tests such as the DLQI can provide clinicians with additional information to document their patient's urticaria and how it impacts on their QOL.

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