

Managing itch: Can we do better?

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Abstract

Itch is a common problem and it can be debilitating. In the approach to managing chronic pruritic diseases, the key would be to identify the underlying cause and to adopt treatment specific to the condition. Unfortunately, in many cases, the cause/s can be occult. A careful examination for an underlying primary dermatosis is required, and repeated examinations at intervals may be needed. In generalized pruritus without a primary dermatosis, investigations to exclude a systemic disease are usually necessary. If the cause is still not determined, a trial of therapy may be very useful. The next step in the approach to chronic pruritus would be to use anti-pruritic agents specific to the type of pruritic disease. As we understand more about the patho-physiology of the various types of chronic pruritic diseases, we will be able to judiciously use treatment targeting the underlying mechanisms better and thereby achieve more favorable results. It is important to understand that itch is a sensation of multi-dimensional nature. In addition to its somatosensory aspect, it is closely linked to emotion and cognition. Very often, chronic pruritus originates from an organic disease but is amplified by the psychology of the patient. It is important to check if there are psycho-social issues that accompanies the presentation of chronic pruritus, and addressing them provides for a more effective and holistic management to the condition. A multi-disciplinary clinic would be suited to better address these aspects. Such a multi-disciplinary clinic would typically comprise a dermatolo-

gist, a nurse educator, a psychologist, a psychiatrist and medical social worker. In summary, our current clinical management of itch can be improved through careful identification of the underlying cause/s, using therapies specific for the disease and targeting the pathological mechanisms, and adopting a holistic approach to the clinical problem.

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INTRODUCTION

Itch is a common problem that adversely affects the quality of life in a large number of people^[1,2]. A phrase that has been repeatedly told to me by different patients is: "I can withstand pain, but itch is something that is intolerable".

It was only not too long ago that the scientific and healthcare communities began seeing itch, a clinical symptom, as a problem by itself. Over the last decade, research in this area has increased significantly and our knowledge in the field has increased almost exponentially. This gain of knowledge, mainly in the basic science aspects, has however, yet to be truly translated into improvement in clinical management.

Currently, our ability to manage itch is still unfortunately suboptimal. Whilst awaiting the development of new and more effective anti-pruritic drugs, the questions for clinicians would be: can we improve our way of managing itch? Can we have a better way in approaching the

problem, and can we make better use of the drugs that are currently available?

APPROACH

The eventual aim in management is to provide patients with sustained relief from itch. If the symptom cannot be abolished, such as in chronic relapsing diseases like endogenous eczema, the aim would be to reduce the symptom to the extent that the patient can function psychosocially at a reasonable standard.

The key to approaching the clinical problem is to identify the underlying cause. Subsequently, targeting treatment to it is by far the most effective way in dealing with itch. The problem is that in many cases of chronic pruritus, the cause/s can be occult. This often occurs in cases of prurigo nodularis, in which the only signs present are those that have resulted from chronic scratching. A careful examination for an underlying primary dermatosis is required, and repeated examinations at intervals may be needed as the cause, such as endogenous eczema, may not be evident at all times. In generalized pruritus without a primary dermatosis, investigations to exclude a systemic disease are usually necessary. If the cause is still not determined, a trial of therapy, such as a course of prednisolone in prurigo nodularis, may be very useful. If itch improves significantly, an inflammatory etiology, such as endogenous eczema, is identified and initiation of photo- or immunosuppressive therapy would be options.

The next step would be to use anti-pruritic agents specific to the type of pruritic disease. Although anti-histamines are typically the first-line drug, they are only readily useful in a few conditions (which are mediated by histamine), namely urticaria, insect bites and mastocytosis, and not in other types of chronic pruritic diseases. Gabapentin has been shown to be effective in kidney disease-associated pruritus, but appears to worsen liver disease-associated itch^[3,4]. As seen from these illustrations, there should not be a general step-ladder or algorithmic approach to itch and we have to individualize therapy to different pruritic diseases. As we understand more about the patho-physiology of the various types of chronic pruritic diseases, we will be able to judiciously use treatment targeting the underlying mechanisms better and thereby achieve more favorable results^[5].

HOLISTIC MANAGEMENT FOR A MULTI-DIMENSIONAL PROBLEM

Itch is a sensation of multi-dimensional nature. In addition to its somatosensory aspect, itch is closely linked to emotion and cognition^[6]. Very often, chronic pruritus is multi-factorial in nature, originating from an organic disease but amplified by the psychology of the patient. The noxious experience subsequently impacts on the affect and thoughts of the patient, forming a vicious cycle. It is important to check if there are psycho-social issues that accompanies the presentation of chronic pruritus, and

addressing them provides for a more effective and holistic management to the condition.

A multi-disciplinary clinic would be suited to better address these aspects. Such a multi-disciplinary clinic would typically comprise a dermatologist, a nurse educator, a psychologist, a psychiatrist and medical social worker. In addition to providing somatic treatment, comprising of topical, photo- and systemic therapies, education on how to carry out the treatment procedures and psycho-education to improve motivation and compliance would be greatly helpful^[7,8]. Cognitive-behavioral therapies, teaching of relaxation techniques and providing counseling and support would also enhance the treatment outcomes^[9].

In recent years, specialized clinics dedicated to treating patients with itch have been set up. These are currently available in Germany and Singapore and the latter takes after the multi-disciplinary model describe above.

RESEARCH

In clinical research protocols, besides assessment of itch intensity, other aspects of how itch relates to life should be included, such as sleep disturbance, quality of life affected and the co-existence of stress, anxiety and depression. With increasing understanding of the pathological mechanisms involved in itch, and while waiting for new drugs to be devised, research may be directed at exploring the anti-pruritic potential of drugs already available (for use in other conditions). An example is tacrolimus ointment, which was manufactured for use as an anti-inflammatory agent and was later found to have an independent anti-pruritic effect^[10] (through activation of transient receptor vanilloid potential 1 ion channels)^[11].

CONCLUSION

Our current clinical management of itch can be improved through careful identification of the underlying cause/s, using therapies specific for the disease and targeting the pathological mechanisms, and adopting a holistic approach to the clinical problem.

REFERENCES

- 1 **Matterne U**, Apfelbacher CJ, Loerbroks A, Schwarzer T, Büttnner M, Ofenloch R, Diepgen TL, Weisshaar E. Prevalence, correlates and characteristics of chronic pruritus: a population-based cross-sectional study. *Acta Derm Venereol* 2011; **91**: 674-679
- 2 **Kini SP**, DeLong LK, Veleadar E, McKenzie-Brown AM, Schaufele M, Chen SC. The impact of pruritus on quality of life: the skin equivalent of pain. *Arch Dermatol* 2011; **147**: 1153-1156
- 3 **Vila T**, Gommer J, Scates AC. Role of gabapentin in the treatment of uremic pruritus. *Ann Pharmacother* 2008; **42**: 1080-1084
- 4 **Bergasa NV**, McGee M, Ginsburg IH, Engler D. Gabapentin in patients with the pruritus of cholestasis: a double-blind, randomized, placebo-controlled trial. *Hepatology* 2006; **44**: 1317-1323

- 5 **Tey HL**, Yosipovitch G. Targeted treatment of pruritus: a look into the future. *Br J Dermatol* 2011; **165**: 5-17
- 6 **Tey HL**, Wallengren J, Yosipovitch G. Psychosomatic factors in pruritus. *Clin Dermatol* 2011; In press
- 7 **Fleischer AB**, Boguniewicz M. An approach to pruritus in atopic dermatitis: a critical systematic review of the tacrolimus ointment literature. *J Drugs Dermatol* 2010; **9**: 488-498
- 8 **Pereira U**, Boulais N, Lebonvallet N, Pennec JP, Dorange G, Misery L. Mechanisms of the sensory effects of tacrolimus on the skin. *Br J Dermatol* 2010; **163**: 70-77
- 9 **van Os-Medendorp H**, Guikers CL, Eland-de Kok PC, Ros WJ, Bruijnzeel-Koomen CA, Buskens E. Costs and cost-effectiveness of the nursing programme 'Coping with itch' for patients with chronic pruritic skin disease. *Br J Dermatol* 2008; **158**: 1013-1021
- 10 **Bathe A**, Mattered U, Dewald M, Grande T, Weisshaar E. Educational multidisciplinary training programme for patients with chronic pruritus. *Acta Derm Venereol* 2009; **89**: 498-501
- 11 **Shenefelt PD**. Biofeedback, cognitive-behavioral methods, and hypnosis in dermatology: is it all in your mind? *Dermatol Ther* 2003; **16**: 114-122

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