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DERMATOLOGICAL NURSING ITCH SUPPLEMENT

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INTRODUCTION

Next to erythema, the one symptom of skin disease that features in the majority of inflammatory skin conditions is pruritus.

Pruritus is the most distressing symptom reported by patients as it affects not just the physical integrity of the skin but also the psychosocial well-being of the individual.

What is it really like living with itchy skin? I am not referring to spontaneous itch, which is relieved and resolves itself following simple scratching. I am referring to the type of itch that is relentless and diffuse across the skin; itch which feels deep as well as superficial; itch that is severe enough to cause nocturnal scratching while asleep; itch which is so distressing that blood has to be drawn through scratching to gain some relief; finally, itch that nobody else can truly understand.

Relieving itch is integral to the management of every pruritic skin condition or disease. We have a duty of care to patients who suffer pruritus associated with their skin condition. That duty of care begins with a knowledge and understanding of the nature of pruritus in dermatology.

The aim of this supplement is to increase the reader's awareness of the problem of itch. It is only with an understanding of itch that can we attempt to work out strategies for relief.

A collection of articles have been compiled in this supplement that bring together important aspects of pruritus, which hopefully will help nurses, patients and carers deal with it more effectively.

To begin, we have an article that highlights the problem of itch in children with atopic eczema. The ramifications for managing relentless itch in a child include supporting, educating and

assisting the carer/family. Following this is a review of the latest research and evidence on the pathophysiology of pruritus. The understanding of different types of itch has come about relatively recently, and it is important to make this a foundation of our nursing assessment and decision making.

Next we identify the importance of medical and nursing intervention in the management of pruritus in relation to skin disease. This is then complemented by a discussion of the relationship between pruritus and the psyche. Clearly, from the case histories and the evidence presented, treating itch is not always simply case of medical management and an understanding of the psychological impact is also important.

I hope after reading this supplement you can see the importance of addressing pruritus. Having read it, I would ask you to reflect and plan how you may implement your updated knowledge.

One way would be to incorporate a pruritus assessment into your dermatology clinical assessment. I would encourage you to assess pruritus as you already assess skin problems. Assess criteria such as severity, onset, duration, site, triggers, reliefs, and psychological impact. Understanding, knowledge and intervention can help patients cope with the symptoms of skin disease, which at times can be unbearable.

We hope you enjoy this supplement and use the information in your daily clinical practice. Many thanks to the contributors for their time and knowledge and for producing a useful evidence-based supplement to support our nursing practice.

Polly Buchanan
President BDNG

THE MANAGEMENT AND TREATMENT OF ATOPIC ECZEMA IN CHILDREN

Julie D Carr

Atopic eczema (AE) is a chronic inflammatory skin condition and represents the most common skin condition seen in paediatric dermatology clinics. It ranges in severity from mild dry skin to severe inflammation with itching and susceptibility to infection. It is thought to affect approximately 15–20% of children in the UK (Poyner, 2003) and has been on the increase over the past 30 years. The symptoms of the disease can be devastating for individuals and their family life. It is a highly individual condition with a strong genetic component and is often associated with asthma, hay fever, urticaria, allergic rhinitis and in some cases food allergies.

Several factors contribute to the development of eczema, including the disruption of the skin barrier, which is thought to be genetically determined (Cox, 2007). This impairment renders the skin more vulnerable to breakdown through environmental triggers, such as allergens and bacteria (Cork et al, 2004).

Recent evidence has suggested that a genetic deficiency of antimicrobial peptides in the sweat glands of AE sufferers contributes to this compromised skin defence. This may explain why AE individuals are more susceptible to recurrent bacterial and viral infections (Rieg et al, 2005).

However, changes to human genes do not happen overnight and the increase in the disease over the last few decades cannot be attributed entirely to genetic changes (Cork et al, 2006). It is thought that environmental triggers, such as house dust mites, increased washing with detergent-based and perfumed

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products, domestic pets, carpets, man-made fibres, central heating and double glazing in houses are among the list of triggers partly responsible. In short, there is a gene/environment interaction that makes AE a multifactorial, complex and difficult condition to treat. The classic symptoms of AE are:

- ▶▶ Itching
- ▶▶ Dryness
- ▶▶ Inflammation
- ▶▶ Fissuring
- ▶▶ Lichenification
- ▶▶ Infection
- ▶▶ Excoriation
- ▶▶ Disturbed sleep patterns.

Emollients

Topical emollients, when used in generous quantities, can help to restore an ineffective epidermal barrier. They are soothing, rehydrating and may have a mild anti-pruritic effect, thus breaking the itch/scratch cycle. They are also acknowledged to be 'steroid sparing' in appropriate quantities, or can at least reduce the potency of the steroid used (Cork et al, 2003). Bath oils (containing soya oils or paraffins) also have emollient properties. Lauromacrogols are anti-pruritic agents that are available in both a soya oil bath emollient and a cream formulation. Emollients play a major part in eczema symptom relief and should not be underestimated or underprescribed by practitioners.

A study by Carr et al (2007) highlighted that many parents were applying emollients ineffectively and few had ever been shown how to apply them correctly (*Figure 1*). Clearly demonstration and education is pivotal in good eczema management. However, choosing the correct emollient for a child or adult requires teamwork with healthcare professionals. Empowering patients to choose their own treatments is well established as

good practice and can help to increase concordance (Carr, 2006).

Points for practice

Good liaison between primary and secondary care regarding the amount of emollient the patient requires on repeat prescription is of paramount importance. Products include bath oils, soap alternatives and emollients. Some patients may find emollients with added antipruritic properties beneficial, particularly when used before bed-time. Different types of emollients can be used on different occasions, for example, thicker, heavier ointments can be used overnight and lighter more user-friendly creams can be used at school.

Warming emollients before use can make them more comfortable and soothing on the skin, and is especially popular in young children and babies. Conversely, putting emollients in the fridge during summer months is also popular as it helps to cool the skin down and reduce the urge to scratch.

Decanting from round-neck tubs to prevent cross-contamination of the product is advisable. If infection is recurrent, patients may benefit from switching to pump dispensers. Reiterating the value of emollient therapy to parents is essential.

Topical steroids

Topical steroid preparations including ointment, cream and lotion formulations have been used to treat AE for over half a century. Despite having a somewhat negative profile in the public domain, they are an effective and safe form of treatment when used appropriately.

Parental anxiety about their strength and side-effects is often the reason why topical steroids are underused (Venables, 1995). As a result, AE symptoms can

be protracted. Dermatology nurses are in a unique position to offer support, reassurance and guidance regarding how much to use, where, and on which body areas. Ultimately, treating the child's underlying eczema is one of the best ways of dealing with the intense itching and inflammation. A course of topical steroids can often be beneficial in reducing these symptoms when used alongside emollients.

Topical steroids are available in four different potencies: mild, moderate, potent and very potent. The majority of children under five years old will be prescribed mild-to-moderate strength with a more potent steroid perhaps aimed at acute exacerbations and then only used in short bursts to gain control. Different dermatology teams may use varying regimes and what works well on one child may not work effectively on the next.

Special attention and follow-up should be given to topical steroids used on the face, eyelids, breasts, thighs and flexures as these are the thinnest areas of skin and therefore the most susceptible to side-effects. Additionally, the more inflamed and active the AE is, the greater is the potential for absorption of the topical steroid applied.

The cutaneous side-effects of topical steroids include skin atrophy, striae, telangiectasia, rosacea and acne. Systemic side-effects are mainly seen when children and adults are treated with oral steroids, but children may still be at risk when treated with a long course of moderate topical steroids due to their increased body surface area/body ratio. This is particularly relevant if the child is very young and the steroid is being used on vulnerable sites (O'Donahue, 2005).

Points for practice

The key to safe steroid use is to work in partnership with children and their parents, giving advice to ensure the correct amounts and potencies are used on prescribed areas. Any child on a long course of topical steroids should be monitored frequently and his/her growth measured on centile charts. This is to ensure pituitary-adrenal axis suppression

and Cushing's syndrome do not occur due to systemic absorption.

Wet wraps and paste bandages

Another staple treatment of AE is the use of occlusive bandaging techniques. Paste bandages with an additional retention wrap on top can give some protection and comfort to the child's itchy and excoriated skin.

The more lichenified and chronically dry types of eczema fare best with paste bandages and they are renowned for their anti-pruritic, soothing and hydrating effects, particularly pre-bedtime. Children and parents may opt for just using these bandages at night but they can be used during the day if the child's scratching is particularly relentless.

Wet wraps are a more simple occlusive technique albeit using the same principles. They have been simplified in recent years by the advent of the tubifast garments which mean parents no longer have to measure and cut bandages to fit the child or laboriously piece them together with ties. Although some children show good results with this therapy a recent randomised study of wet wraps versus conventional treatment of AE showed no appreciable difference in managing symptoms (Hindley et al, 2006). The study also

found that maintenance treatment with wet wraps was harder to apply and may be associated with more skin infections than conventional treatments. Wet wraps should also not be used until the skin is free from infection.

The use of topical steroids under occlusion enhances the penetration of the topical steroid. Some children's dermatology teams, such as the author's in Sheffield, prefer the exclusive use of occlusive techniques with emollients as this decreases the risk of cutaneous side-effects. However, very lichenified skin does benefit from a short course of topical steroids under occlusion if correctly monitored. Alternatively, large amounts of greasy emollient can be used. If the child is known to have chronic infection problems, switching to a cream-based emollient is advisable.

Points for practice

When initiating occlusive techniques it is essential to take into consideration a number of factors:

- ▶▶ The preferences of the child and parent as these techniques require commitment on a daily basis
- ▶▶ The type of eczema and whether infection is a substantial risk factor
- ▶▶ When prescribing in secondary care it is imperative that prescribers in primary care are aware of the



Figure 1. Emollient being applied to a child.

make of bandage and garment the child is using and how much they will need on repeat prescription. Parents should have enough stock to cover them until they are able to gain a regular supply at their local pharmacist.

Immunomodulator creams

The most recent addition to topical therapy for AE has been the introduction of tacrolimus ointment and pimecrolimus cream. These calcineurin inhibitors are acknowledged as having benefits over topical steroids in many cases and have been approved by the National Institute for Health and Clinical Excellence (NICE), which compiled guidelines for their safe use in 2004 (NICE, 2004).

Tacrolimus ointment is a natural product of the fungus *Streptomyces tsukubaensis*, while pimecrolimus cream is a semi-synthetic product of the natural product ascomycin. They show structural similarities to glucocorticosteroids and are effective anti-inflammatory treatments. In contrast to the use of topical steroids, these products do not cause skin atrophy and therefore can be used on areas of the body such as eyelids and flexures. Both treatments are currently licensed for children but not infants.

However, concerns have been raised regarding the increased risk of skin cancer; infection and other undesirable immunosuppressive effects. Long-term studies are underway to establish the risks of these treatments and they are currently used mostly by dermatologists with careful and regular monitoring. The issue of cost does surface periodically and this may make universal use prohibitive.

Points for practice

Healthcare professionals should consult the manufacturers' written instructions regarding the amount to use, the areas to be treated, the use of sun block if children are to be exposed to sun (even on overcast days in the UK), and the need to discontinue therapy if bacterial or viral infections occur.

Children and adults may experience a slight burning or tingling sensation on

initial application, however, this is normal and should soon wear off. If the areas to be treated are particularly irritable for an extended period of time, the treatment should be washed off and advice taken from the dermatology team responsible for the care.

Infection and eczema

Secondary skin infections in AE are common, unpleasant and occasionally dangerous (Atherton, 1995). The defective skin barrier provides an attractive environment in which micro-organisms can flourish and multiply. Bacterial, viral and fungal infections can all be responsible for acute exacerbations of AE. The most common bacterial cause of infection is by the *Staphylococcus aureus* bacterium. Streptococci is also fairly common.

Symptoms include crusting, weeping and/or postulation on the skin. Infection may also be associated with a sudden worsening of the AE with extensive itching and excoriation. Topical antibiotics can be used for the treatment of localised AE infections, although care should be taken with the use of fusidic acid preparations. Inappropriate and long-term usage can lead to resistance and may threaten efficacy (Shah and Mohanraj, 2003). Likewise, the use of mupirocin and all other antibiotic products should be limited to prevent similar problems.

Oral antibiotics are used when symptoms are more generalised and AE is not responsive to first-line measures. Many parents use anti-microbial products when children become infectious or perhaps intermittently to prevent infective flare-ups. Parents should be advised that if they are using antimicrobial products on an ongoing basis the child's skin could become drier, requiring additional emollients and/or short breaks from the antimicrobial treatments.

Eczema herpeticum is a serious viral infection in which punched-out grouped vesicles develop with associated oozing and erosion. This requires prompt medical assistance. It may be associated with the child becoming generally unwell and uninterested

in feeding/drinking. They may also complain of stinging, burning or pain from affected areas. If the viral infection is mild, a course of oral aciclovir will usually suffice. If the infection is more widespread, admission to hospital for intravenous aciclovir is recommended.

Points for practice

A child presenting with eczema herpeticum may also have superimposed bacterial infection which will require treatment with antibiotics. Herpetic flare-ups should not be treated with potent steroids as this may exacerbate the symptoms.

Dietary manipulation in AE

The question of dietary triggers in AE is common during paediatric consultations. The general public often take food allergies more seriously than the medical profession, especially in relation to symptoms and prevalence (Durham, 2003). Foods are often suspected of being provoking factors in babies, however, the lack of absolute laboratory testing for food allergy coupled with the complexities of the condition make it a difficult arena to tackle (Cox, 2007).

If a parent gives a clear history of an immediate food reaction or a history of loose stools, vomiting and perhaps associated failure to thrive, it may be worth further investigation and the elimination of the offending foods from the child's diet. This must be done with the strict supervision of the dermatology team, dietician and the allergy team if appropriate, as well as the child's health visitor and GP. Monitoring the reduction in eczema severity during the elimination period is essential, but sadly may not always show complete resolution of the AE.

While discussing dietary issues it is sometimes useful to point out that AE can be affected by processed foods containing strong colourings or flavourings. In the experience of the author's team, these can come in the form of coloured sweets, 'fizzy pop', ice lollies, juice drinks and highly flavoured crisps or snacks. Nurses should remember that these foods do not belong to an important food group and

can be removed from the diet without medical concern. Healthier or less coloured/flavoured alternatives may be introduced instead.

Points for practice

Parents should always be listened to regarding their dietary concerns as these can often be the source of great stress. However, parents should be advised that *ad hoc* and unsupervised dietary manipulation is not recommended by medical professionals. It is vital that babies and young children receive a diet that is nutritionally balanced.

Family and cultural issues

AE is easily and frequently dismissed as relatively unimportant, although parents and carers often have a very different perspective (Cox, 2005). For many parents, the intense itching, scratching and consequent breakdown of their child's skin can be demoralising. Sleeping patterns may be disturbed, the mood of the child may affect other family members and parents may find treatments all-consuming.

Dermatology teams should also acknowledge cultural differences as eczema affects children from many different backgrounds in the UK.

Conclusion

Atopic eczema is a chronic skin condition that many families find difficult to cope with. It should never be viewed by the healthcare professional as simply 'an itchy rash' as it can cause great misery and irritation for the child and considerable anxiety for the parents.

The importance of consistent emollient regimes should be reiterated to parents at every opportunity as these are the most significant forms of basic treatment. It is critical that parents understand when to apply treatments, how much to use and that they should have access to large quantities of their chosen emollient on repeat prescription. Instructions written down in a care plan and parent-held book are invaluable in ensuring effective control.

It is essential that healthcare professionals understand the

complexities of the condition and the need for continuity of advice across primary and secondary care. **DN**

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Key Points

- » Atopic eczema (AE) is a chronic inflammatory skin condition and represents the most common skin condition seen in paediatric dermatology clinics.
- » Many families find it difficult to cope with and it should never be viewed as simply 'an itchy rash' as it can cause great misery and irritation for the child and considerable anxiety for the parents
- » The importance of consistent emollient regimes should be reiterated to parents at every opportunity as these are the most significant forms of basic treatment.
- » It is critical that parents understand when to apply treatments, how much to use and that they should have access to large quantities of their chosen emollient on repeat prescription.
- » It is essential that the healthcare professional understands the complexities of the condition and the need for continuity of advice across both primary and secondary care.

AN OVERVIEW OF THE PATHOPHYSIOLOGY ASSOCIATED WITH ITCH

Diane Hamdy

This article aims to outline the pathophysiology of itch, looking particularly eczema and psoriasis, as well as the systemic causes of itch and the investigations involved.

Itch is an uncomfortable sensation that causes a desire to scratch the skin, while pruritus is a severe itching of the skin. While itch and pruritus are often used interchangeably, for the purpose of this article the term itch will be used.

Itch is a sensation in the skin that induces the behaviour of scratching or rubbing. This increases stimulation of the nerve fibres and results in inflammation, thus perpetuating the classic itch-scratch cycle (Yosipovitch and Hundley, 2004). Often there is subsequent skin damage, such as the excoriation and lichenification associated with eczema.

Itch can affect a patient's lifestyle, sleep patterns, work and interpersonal relationships and can be an extremely distressing symptom (Penzer, 2002). In common with other cutaneous sensations such as pain, touch, heat and cold, itch acts as a physiological protective mechanism to help defend the skin from harmful external agents such as plants and parasites. Itch caused by an insect bite, parasite or allergen prompts an individual to examine the area and remove any other potential hazards from the skin.

Acute itch is an unpleasant sensation provoking the desire to

scratch for a limited period of time, which may range from seconds to a week. The cessation of itch may occur before healing is complete and this type of itch often occurs following insect bites or acute dermatitis, where erythema may persist after the itch has settled.

Chronic itch differs from this in that therapies which provide transient relief fail to resolve the underlying pathology and chronic itch continues even after treatment has stopped. Chronic itch significantly affects quality of life.

Intractable itch is described as 'a chronic state in which the cause cannot be removed or otherwise treated and in the generally accepted course of medical practice no relief or cure is possible or none has been found after reasonable efforts' (Yosipovitch and Greaves, 2003).

It is important to recognise that itch is commonly a symptom of systemic disease as well as dermatological disease.

Background physiology

Neurons (nerve cells) are the structural units of the nervous system. They consist of the cell body, dendrites that convey incoming messages towards the cell body and axons that generate nerve impulses and transmit these away from the cell body (Figure 1). Neurons are highly specialised and they transport messages in the form of nerve impulses from one part of the body to another.

Sensory or afferent nerve fibres transmit impulses to the central nervous system from sensory receptors throughout the body, such as those in the skin. Neurons may be

myelinated or non-myelinated and the former are covered by a fatty sheath that protects, electrically insulates and increases the speed of nerve impulse transmission. Unmyelinated fibres conduct impulses relatively slowly. Itch is conducted by unmyelinated C fibres.

Sensory neurons carry impulses from the cutaneous receptors in the skin. Small diameter fibres, such as those for pain and itch, synapse with superficially located neurons in the dorsal horn of the spinal cord. The somatosensory cortex (the part of the brain dealing with reception of information) receives information via ascending non-specific pathways, also known as anterolateral pathways (due to their location in the anterior and lateral columns of the spinal cord). These are formed largely by the anterior and lateral spinothalamic tracts. Perception is the final stage of sensory processing and facilitates awareness of stimuli (Marieb, 1998).

Sensory inputs generally evoke a behavioural response in humans. This is not obligatory, however, and a choice can be made to act or not act, for example, whether or not to scratch. This accounts for the success of cognitive behavioural measures such as 'habit reversal' for the management of itch in some patients with conditions such as eczema.

The mechanism of itch

In response to itch, neurophysiological pathways are activated. Cutaneous itch, which originates in the skin, is 'pruritoceptive'. This means it is induced by the stimulation of the free nerve endings of the C fibres by a range of endogenous or exogenous mediators or pruritogens. Histamine is commonly cited as a mediator

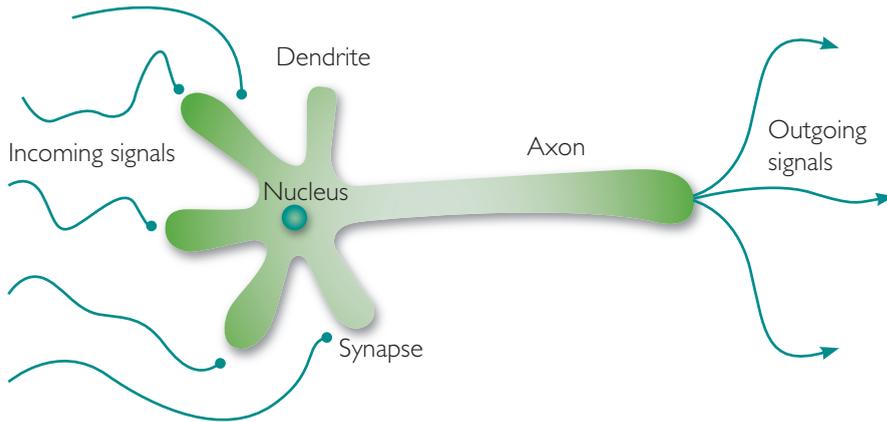


Figure 1: The neural pathway of itch.

for itch. It is stored in mast cells, which are large, granulated cells found in the skin. When mast cells degranulate they release inflammatory chemicals including histamine into the surrounding tissue leading to a localised inflammatory response.

Histamine is known to provoke itch, and its role in acute conditions, for example, reactions to insect bites, urticaria and drug rashes is well recognised (Hendry and Farley, 2001; Twycross, 2003).

Other inflammatory mediators of itch are known to have a pruritogenic effect. Some act directly on the nerve endings while others act indirectly, releasing endogenous substances that stimulate the nerve endings. Examples of other mediators include cytokines, neuropeptides and prostaglandins, which potentiate the itch caused by histamine. Proteases, for example, pollen from plants or dust mites can also induce itch.

The neurophysiology of itch

Research findings in individuals have demonstrated that itch is transmitted by a specific subset of unmyelinated C fibres. These are low velocity fibres anatomically identical to those that mediate pain but functionally distinct. The C fibres that mediate itch are thought to comprise approximately 5% of the afferent C fibres in the nerves of human skin (Twycross et al, 2003).

High affinity receptors for the mediators of itch transmit the stimulus via intracellular signalling from the

periphery to the dorsal root ganglia and spinal cord. A specific area in the dorsal horn of the spinal cord (Lamina I) transmits the signal to the central nervous system (CNS).

Specific areas in the CNS are then activated, which results in the perception of itch. This leads to discomfort and a subsequent scratch response (Figure 2) (Paus et al, 2006).

Neuro-anatomical pathway of itch

From its cutaneous origin, the pathway of itch can be summarised as follows (Marieb, 1998; Twycross et al, 2003):

- ▶ Pruritogen (stimulus for itch, e.g. insect bite)
- ▶ Free nerve endings (unencapsulated dendritic nerve endings of sensory neurons)
- ▶ Un-myelinated C nerve fibres
- ▶ Dorsal horn of spinal cord
- ▶ Contralateral spinothalamic tract (motor innervation of the body is contralateral, for example, areas in

- left side of brain control muscles on right side and vice versa)
- ▶ Posterolateral ventral thalamic nucleus (the thalamus is the part of the brain that sorts and edits information)
- ▶ Somataosensory cortex (the part of the brain dealing with reception of information).

Skin conditions and itch

Some of the skin disorders where itch is a symptom are found in Table 1. It is important to recognise that a number of systemic conditions can also trigger itch, which is often severe and persistent. Table 2 indicates some examples (Du Vivier, 2002).

Categories of itch

Itch is described commonly in four categories:

- ▶ Pruritoceptive itch: an itch that originates in the skin and is induced by stimulation of the specialised C fibres by a range of pruritogens. This type of itch may be due to damage, inflammation or dryness. Xerosis, or dry skin, is associated with alteration in the skin barrier function, affecting the surface lipid content and water content. This dryness is thought to contribute to the sensation of itch (Yosipovitch and Hundley, 2004). Examples of pruritoceptive itch include urticaria, insect bites and scabies
- ▶ Neurogenic itch: this is an itch that originates centrally in the absence of neural pathology, for example, the itch involved in cholestasis, which

Table 1

Skin conditions and itch

Inflammatory Conditions	Infections / infestations	Other causes
Psoriasis	Impetigo	Mycosis fungoides
Eczema	Herpes simplex	Poly morphic light eruption
Lichen planus	Candida albicans	Allergy
Lichen simplex chronicus	Bacterial folliculitis	Sunburn
Bullous pemphigoid	Parasites	
Drug eruptions	Pediculosis	
Urticaria	Scabies	
Dermatitis herpetiformis		
Prurigo		

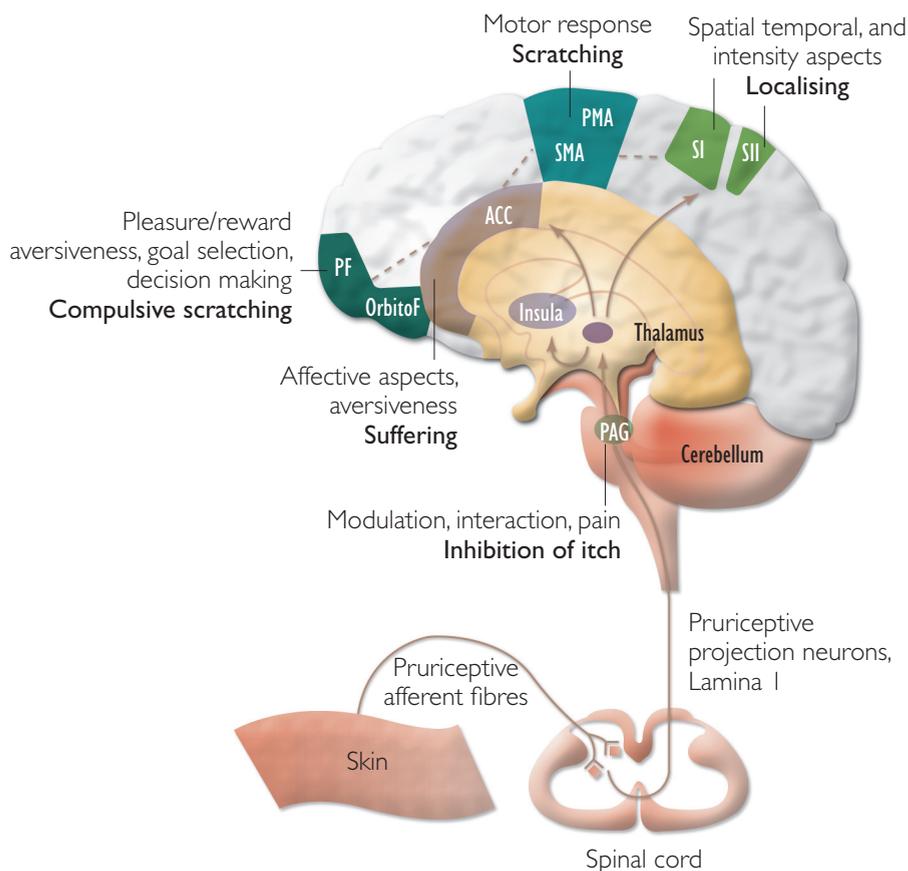


Figure 2: The scratch response.

is a result of the action of opioid neuropathies on opioid receptors

- ▶ Neuropathic itch: this arises due to diseases along an afferent pathway and can originate at any point as a consequence of damage to the nervous system. Examples include post-herpetic neuropathy and itch associated with brain tumours and multiple sclerosis
- ▶ Psychogenic itch: this is an itch that is exhibited in parasitophobia, compulsive disorders or delusional states (Yosipovitch et al, 2003). An itch may be labelled as psychogenic only when cutaneous and systemic causes have been excluded. Parasitophobia can be recognised by the person's description of the illness and presentation of the material perceived as parasites.

Characteristics of itch

Itch may be generalised or localised and the distribution may be suggestive of certain conditions, for example, itch in dermatitis herpetiformis affects the scalp and extensor aspects of the forearms, lower back and legs. Scabies

rarely affects the face and scalp in adults. Description of itch, for example, like ants crawling all over the skin, may be associated with systemic disease or psychological causes.

The time that itch is worst may be relevant, for example, itch associated

with scabies may be more pronounced when at rest or at night. Itch may also be constant, another feature of systemic disease or ageing. The intensity of itch may be demonstrated by the presence of secondary skin lesions resulting from scratching, for example, excoriations and lichenification (Graham-Brown and Bourke, 1998).

Investigations

The investigation for itch in the absence of any obvious skin disease are shown in Table 3 (Buxton, 2003). These investigations seek to identify any underlying disease process that requires treatment. Treating an underlying cause such as hypothyroidism may improve the symptom of itch.

Atopic eczema and itch

The pathophysiology of itch in atopic eczema (AE) is still not completely understood, however, itch is a significant feature of (AE) and one of the diagnostic criteria.

The itch threshold in AE is lower than that in non-AE skin. This phenomenon is known as allodynia, and an innocuous light touch can easily elicit itch (Twycross et al, 2003).

The number of cutaneous nerve fibres is thought to be altered in atopic skin, with an increase in sensory fibres. A number of mediators are considered

Table 2

Systemic disease and itch

Diabetes mellitus	Associated general pruritus
Thyroid dysfunction	Generalised itch may improve with treatment of hypo/hyperthyroidism
Hepatic disease	Primary biliary cirrhosis, extrahepatic obstruction, cholestasis of pregnancy, cholestatic drugs - itch may indicate disease
Renal disease	Chronic renal failure
Haematological disorders	Iron deficiency anaemia, polycythaemia rubra vera, haemochromatosis, paraproteinaemia
Malignancy	Hodgkin's disease, lymphoma, leukaemia, abdominal cancer
Neurological disorders	Multiple sclerosis, brain tumour
Drug addiction and abuse	Opiates and their derivatives, prescription medication, aspirin
Psychological	Parasitosis, stress and anxiety

to be involved in the itch associated with AE, including, cytokines, neuropeptides (substance P), and histamines.

Another key factor is the disruption of the skin barrier function in AE, resulting in its poor ability to maintain hydration. Trans-epidermal water loss is increased and water content decreased (Lee et al, 2006).

Disruption of the stratum corneum in AE facilitates the penetration of irritants and allergens, triggering inflammation and itch. Itching may also be initiated by any stimulus that induces sweating, for example, heat is reported by AE patients as a common trigger. Substances that increase blood flow and vasodilatation may also trigger erythema and itch (Stander and Steinhoff, 2002).

Psoriasis and itch

Itch in psoriasis is a significant problem for many patients with some studies suggesting as many as 80% of psoriatic patients experience itch (Aerlyn and Yosipovitch, 2006). It is suggested that the skin in psoriatic lesions may be more richly innervated than non-psoriatic skin. It is postulated that possible mediators of itch in psoriatic lesions are substance P, neuropeptide-degrading enzymes and nerve growth factor, cytokines, and neurogenic factors including innervation. These itch-related markers in psoriasis are documented in a small study by Nakamura et al (2003), which suggests that the mechanism for itch in psoriasis is complex and multifactorial.

Table 3

Investigation of itch

Full blood count for polycythaemia, microcytosis
Serum ferritin for total iron binding capacity
Liver Function for cholestasis
Thyroid function for hyper/hypothyroidism
Urea, electrolytes, creatinine for renal failure, uraemia
Urinalysis for diabetes and renal disease
Stool for faecal occult blood/ parasites
Chest X-ray for lymphoma

Conclusion

Itch is major symptom for many people of all ages and can have a significant effect on their quality of life. The complexity of itch can mean many people struggle to find an effective treatment.

The science and impact of itch is gaining increasing recognition. In September 2005 the Third International Workshop for the Study of Itch was held in Germany and attended by 200 physicians and scientists from all over the world. Discussions included a number of topics relevant to itch, including neurophysiology and the psychosocial aspects. The next meeting is to be held in San Francisco in September 2007 (Yosipovitch and Stander, 2006) (International Forum for the study of itch: www.itchforum.org). **DN**

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Key Points

- ▶▶ Itch is a sensation in the skin that induces the behaviour of scratching or rubbing. This increases stimulation of the nerve fibres and results in inflammation, thus perpetuating the classic itch-scratch cycle.
- ▶▶ Itch is major symptom for many people of all ages and can have a significant effect on their quality of life.
- ▶▶ The complexity of itch can mean many people struggle to find an effective treatment, however, diagnosing and treating any underlying cause is the most obvious starting point.

THE TREATMENT OF ITCH IN RELATION TO SKIN DISEASE

Rebecca Penzer

One of the greatest nursing challenges in relation to managing skin disease is alleviating the suffering and discomfort caused by itch. Most skin diseases have some degree of itch associated with them and some, such as eczema, are defined by their propensity to cause the unpleasant sensation of itch.

Before starting to make decisions about the best way to manage itchy skin, the nursing assessment must have taken into account the following three considerations:

- ▶▶ As far as possible the cause of the itch should be determined as without this knowledge it is impossible to treat the condition properly. For example, if the itch is caused by scabies but is treated as eczema, not only will the patient not improve, but the itch will actually worsen. It is also important to determine whether there is an internal cause for itchy skin such as cholestasis
- ▶▶ The nurse should also attempt to ascertain whether the itch sensation is acute or chronic in nature. Those with intractable chronic itch are likely to need considerably more support than someone who has a transient acute itch caused by an insect bite, for example
- ▶▶ As a person ages, physiological changes in their skin mean that sweat and sebum production decreases and that the hydrolipid film is not as protective. This in combination with environmental factors (such as overheated living conditions) serve to make older people's skin particularly prone to

itching. Once other causes of itch have been ruled out, an effective skin care regime of total emollient therapy is often all that is needed to decrease the unpleasant sensations related to senile pruritus.

Non-pharmaceutical strategies

There are a number of things that can be done to decrease itchiness in the skin without the use of pharmacologically active products (*Table 1*). The unifying factor in all the suggestions is that they aim to keep the skin cool and to minimise trauma to the skin. When skin is dry and sensitive (as it is in the very young, older people and those with conditions such as eczema), it is vital to minimise the number of possible sensitisers that the skin comes into contact with, i.e. keeping household and topical products as bland as possible.

The itch-scratch cycle

It has been shown that chronic itchy skin conditions like eczema are aggravated by scratching. Itching leads to a scratch response that further damages the barrier function of the skin and causes worsened itching (the itch-scratch cycle) (Wakelin, 2005). If this scratching behaviour can be interrupted, the sensation of itching may be decreased. Therefore, some of the most effective non-pharmacological strategies involve decreasing the likelihood of scratching and/or minimising the damage caused by scratching if it does occur.

Behaviour modification

This method of itch management is predicated on the fact that scratching becomes habit forming and that if this habit can be broken, the skin will become less itchy and therefore scratching is less likely to occur. Most effective for adults with itchy skin, the method involves substituting the scratching behaviour for a non-damaging

behaviour; for example, getting the patient to use a clicking device (Bridgett et al, 1996). Other methods might involve patting or pinching the skin rather than scratching it.

Wet wrapping

The principles behind wet wrapping as a treatment are twofold:

- ▶▶ It cools the skin
- ▶▶ It decreases the trauma caused to the skin by scratching and breaks the itch/scratch cycle.

The author's clinical experience shows that this practice can be very soothing and relieving, particularly when used on children with eczema.

Emollients (and if necessary topical steroids) are first applied to the skin. The wet wrapping itself involves cutting lengths of tubular bandage for the limbs (two lengths for each limb). Two lengths of arm and two of leg bandage are soaked in warm water before being wrung out and applied to the limbs. Dry lengths of cotton tubular bandage are then applied over the top. The bandages are secured in place by making holes in the top of each bandage and tying it to a vest or underwear (Lawton, 1999).

A modified version of this is to just use one layer of dry bandage. This is quicker and simpler and will also help to stop the damage caused by scratching, particularly if used in conjunction with mittens or gloves. Wrapping is most effectively used at night although day time usage is possible. Wet wraps should not be used if the child has a skin infection.

Paste bandages

Once again the principles behind paste bandages are twofold:

- ▶▶ The product in the bandages, for example tar, works to cool the skin

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and may have an active antipruritic effect

- ▶▶ They prevent scratching thus helping to break the itch-scratch cycle.

Paste bandages are most commonly used on adults and are applied either in strips or by pleating the bandage along the length of a limb. They are then secured in place with a tubinet and a soft crepe bandage. They can be left on the skin for 24 hours. Emollients are/or topical steroids may be applied under the bandages, although as with wet wrapping, occlusion will increase the absorbency of the steroid and thus it's potency.

Emollient therapy

As has already been mentioned, dry skin is generally itchy. One simple way of relieving dry skin is to apply emollients. Total emollient therapy consists of using a bath oil, a soap substitute and a leave-on emollient. The emollient effect of products is to smooth and soothe the skin and this occurs in one of two ways.

- ▶▶ The emollient acts as an occlusive layer trapping natural moisture into the skin. Bath oils are also very effective at this, leaving a greasy layer on the skin and trapping natural moisture
- ▶▶ Alternatively, emollients contain active ingredients known as humectants that attract water from the dermis into the epidermis thus rehydrating the outer layer of skin. Examples of humectants

include glycol and urea. Urea is also thought to have antipruritic effects, however, the levels of urea found in most emollient products are not thought to be high enough to exert an antipruritic effect on their own (Loden, 2000).

The anti-pruritic ingredients of emollients

As well as having a moisturising effect some emollients contain other active ingredients that act as antipruritic agents. Lauromacrogols are often added to emollients such as soya oil and although their action as an antipruritic is not entirely understood, they probably inhibit the transmission of itch sensations through the unmyelinated C fibres. They also act as an anaesthetic when applied to mucous membranes or bruised skin (Betzuege-Pfaff and Melze, 2005).

Antimicrobial products, e.g. those that contain benzalkonium chloride and/or chlorhexidine chloride, are thought decrease the bacterial load on the skin and potentially reduce the likelihood of flare-ups. The high bacterial load on the skin in eczema can drive the eczematous process. It is believed that the high levels of *Staphylococcus aureus* on the skin cause an immune-mediated response, which in turn stimulates the release of inflammatory mediators. This can cause further flare-ups of eczema (Breuer et al, 2002). Antimicrobial products may be of particular use for individuals who have frequent skin infections that require antibiotics as a preventive measure,

although there is no current evidence to support this claim. Also there the a danger of building bacterial resistance if these products are overused (BAD, 2006). Antimicrobial components can also act as sensitisers in some people.

Topical anti-pruritic products

In addition to emollients there are a number of products that can help to reduce the experience of itch when applied to the skin.

Menthol and phenol

Mixed with an oil-based product, these can provide some mild relief from irritation. This is probably related to their cooling effect.

Calamine

As a lotion calamine may be counterproductive as when the water evaporates it causes drying. The pink colouration of the product also makes it unpopular.

Topical antihistamines

These have a very mild anti-pruritic effect and may be useful for transient, histamine-related itch such as an insect bite.

Doxepin 5% cream

This cream acts by blocking the H1 and H2 receptor sites, which act as the neural pathways for itch. As a topical product it can only be used on small areas of skin (no more than 10% of the body surface). The maximum dose is 3g per application. It is not recommended for use in children. Side-effects include drowsiness, which increases the larger the body surface area treated. Data suggests that over a period of a week drowsiness levels decrease (Drake and Millikan, 1995). Product information suggests that the incidence of drowsiness is between 12–19% (Typharm Dermatology, 2006).

Topical corticosteroids

If the primary cause of irritation is inflammation, topical steroids will have an antipruritic effect.

Capcaisin

This is a substance derived from chilli peppers that inhibits the transmission of

Table 1

Decreasing itchiness in the skin without the use of pharmacologically active products

Action	Rationale
Keep cool but not cold	Heat makes the skin uncomfortable, but any extremes of temperature can aggravate eczema (Lawton, 2001)
Cool treatments	Applying cooled treatments to the skin can be soothing
Wear soft natural fabrics next to skin and not fabrics that make the skin sweat, e.g. nylon	Cotton is probably the best fabric as it allows air to the skin and is non-irritating
Gently dry the skin after washing	Rubbing the skin vigorously after washing will aggravate the skin and can set off the itch-scratch cycle
Avoid perfumed products	Perfumes are known sensitisers and can be particularly problematic for people with sensitive skin

itch messages to and from the brain. It is only licensed for pain relief, however, it does have an anti-pruritic effect. The product has to be applied repeatedly and there are issues in relation to sensitisation.

Tar

Products containing tar are known to have an antipruritic effect (Ashton and Leppard, 2005). Tar-based products come in a number of different presentations, which allows for a variety of management strategies. It can be applied through impregnated paste bandages, as a bath oil or soap substitute, or a leave-on topical product.

Crotamiton

Crotamiton has been thought to have anti-pruritic properties, however, this reputation is probably linked to the fact that it reduces the itch experienced in cases of scabies. One study showed that as an anti-pruritic it was no more useful than aqueous cream (Smith et al, 1984).

Malathion and permethrin

Malathion and permethrin are currently the anti-scabetic treatments of choice in the UK (BAD, 2006). The itching involved in a scabies infestation is likely to continue for up to two weeks after the infection has been successfully treated. This is because the scabies itch is caused by the waste products generated by the scabies mite and these remain in the skin for some time after the treatments have been applied and the mites themselves have been killed.

Anti-fungals

As fungal infections such as tinea pedis cause itching, antifungal products, when used correctly, will decrease this irritation. Accurate assessment of the causes of the itch is vital if it is to be treated effectively and skin scrapings are helpful in confirming a case of tinea pedis.

Oral anti-pruritics

Anti-histamines

If the itchy skin has been caused by a histamine-mediated response, for example, urticaria, oral anti-histamines are an effective treatment. Unfortunately, the majority of chronic skin conditions

are not related to histamine release and therefore histamines are of limited value. However, sedating anti-histamines may still be useful if used at night as they make sleep more likely, thus reducing the scratching behaviour.

Antibiotics

Although not strictly speaking an anti-pruritic, oral anti-bacterial agents can be useful in controlling atopic eczema where colonisation with *S. aureus* and the pruritus associated with it has occurred (Breuer et al, 2002).

Conclusion

It is hard to say where the future of itch management lies. However, an article by Mahtani et al (2005) suggests that therapies tried on patients who have psychogenic pruritus, may have a beneficial effect for those with skin-related pruritus. A case study of an adult with atopic eczema showed that treatment with a low dose of mirtazapine (a selective serotonin reuptake inhibitor-anti-depressant) reduced skin itching. In fact, when mirtazapine was given in conjunction with olanzapine (an antipsychotic) and zopiclone (a hypnotic) the itching and scratching behaviour ceased (Mahtani et al, 2005). As the brain interprets itch messages, perhaps it would be unsurprising if future treatments are focused on this area. **DN**

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Key Points

- » Most skin diseases have some degree of itch associated with them and some, such as eczema, are defined by their propensity to cause itch.
- » There are a number of things that can be done to decrease itchiness in the skin without the use of pharmacologically active products.
- » Total emollient therapy consists of using a bath oil, a soap substitute and a leave-on emollient. The emollient effect of products is to smoothe and soothe the skin.

THE PSYCHOLOGICAL IMPLICATIONS OF EXPERIENCING ITCH

Philip Watkins

This article focuses on the experiences of patients obtained by the author from nurse-led community clinics for chronic dermatoses, such as eczema and psoriasis. The remit of these clinic sessions is to offer patients support to enable them and their family and/or carers to become confident in the management of their conditions.

Itching can be seen as more than simply a physical symptom and this article aims to examine how itch as a symptom of skin disorder can also be viewed as a symptom of distress and anxiety.

Cause or effect: itch as trigger and symptom

Bridgett et al (1996) write that 'scratching is an objective behaviour while itching is a subjective experience'. They draw out distinct consequences of the interplay between itch and the resultant scratch behaviour. These consequences manifest physically, for example, redness weeping and bleeding; emotionally, for example, relief, dismay and regret; and socially, for example isolation, upset and arguments.

Case study one

Annie is an eight-year-old girl. Her mother brings her to clinic because of inflamed itchy red patches of eczema affecting her ankles, the backs of her knees, the antecubital fossae, and the back of her neck. Annie's mother reports that Annie constantly scratches these areas more than any other part of her body. It is evident that the physical symptoms are more related to the scratching than any active flares of atopic eczema. Indeed, Annie's mother confirms that there have been no recent flare-ups of eczema. Furthermore, far from being

distressed, Annie seems to be unaware that she is scratching and is certainly not looking at the areas she is targeting. Her mood changes when her mother chastises her for scratching, telling her to stop and pulling her hands away. Annie is clearly embarrassed and looks guilty. Within a few minutes she is once again scratching but this time is apparently very aware of her actions.

Itch-scratch-itch cycle as an emotional response

Bridgett et al (1996) state that scratching is a nervous habit 'which starts as a normal, understandable behaviour in response to the feeling of itch. If scratching is thus provoked for a sufficient length of time, and increases in frequency, awareness is reduced and the behaviour becomes automatic.'

This is helpful, but while it is clear that a stage has been reached where Annie is scratching as an automatic response to itchiness, this simple model does not explain the mood changes observed in the case study. This episode of scratching seems to go beyond automatic response. In this case study Annie is clearly expressing her emotional anxiety in the scratching.

Furthermore, these emotional communications change once her mother has witnessed and commented upon her actions. One might imagine that Annie's desire to communicate emotion has been transmitted successfully and so she is able to pursue the communication further.

But why did Annie's mood change so noticeably when attention was drawn to the fact that she was scratching? How can scratching, a perfectly reasonable response to a physically distressing symptom, become associated with emotions ranging from relief through to guilt and embarrassment?

Bridgett et al (1996) state: 'It is evident that some of the difficulties that adults have in their psychological adjustment to long-standing atopic skin disease may originate in childhood experiences...Scratching behaviour can clearly become a potent method of non-verbal communication between child and concerned parents.'

How skin can come to symbolise anxiety

Case study two

Danielle is a seven-year-old girl who suffers with very dry reddened and powdery flaky skin as a result of a history of atopic eczema. Danielle's mother enters the clinic room in a distressed state. Danielle stays in the waiting area and silently refuses to join her mother.

This behaviour continues for some minutes before Danielle reluctantly enters the room scratching vigorously at her body and arms. It seems that the more distressed and concerned her mother becomes, the more Danielle scratches her skin. Danielle has a history of itchy dry eczematous skin, but there seems to be a clearly disproportionate self-harming element to the behaviour. Also, she seems to be smiling at her mother's distress.

In this study, Danielle may be expressing anxieties by using the scratch-damaged skin to communicate feelings that are painful to relay verbally. Certainly, her mother's reaction supports this conclusion as she exhibits anxiety more overtly than Danielle. Perhaps Danielle's grim smile is an expression of relief that her mother has acknowledged Danielle's anxiety overtly in her own reactions. Zaidens (1951) states: 'The skin may also serve symbolically as a protective layer, covering up that patient's inadequacy, immaturity, failure or inability to cope with everyday problems.'

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Case study three

Jeff is a self-employed businessman in his early 40s, whose busy life has recently led to pressure on his marriage. Jeff is being seen for the first time for his psoriasis. He is clearly upset and in short phrases, slightly aggressive in tone, he relates how he was treated very abruptly by the receptionist.

While he details this 'rude and unnecessary confrontation' he is apparently unaware that he is scratching vigorously at the backs of his hands and chest. He comes to the end of his account and sits and breathes out. His scratching ends abruptly and he seems to notice for the first time that he has left skin flakes on his clothes and on the floor. He does not mention this but waits for me to speak, while apparently trying to control his emotional state.

Eventually, he is able to say that the receptionist had no right to treat him like a 'nobody' simply because he has poor skin. Jeff mentions in an almost dismissive way that the recent flares coincided with the break-up of his marriage, following an increase in his drinking. The scratching returns, and after a short break in conversation, Jeff suddenly becomes visibly tearful. There is a quiet moment during which Jeff is no longer fighting to control his emotions but allowing himself to feel them openly. He is no longer scratching.

During the early part of the consultation, I think that Jeff was unable to verbally express some difficult connections in his mind between his psoriasis and his self-esteem. The incident with the receptionist seems to have acted catalytically, in that it brought these anxious connections to the surface.

At first, I sensed a hidden emotional response being shown as a vigorous scratching of the back of Jeff's hands and across his chest. This seems to have preceded Jeff allowing himself to express emotion more directly. At first, he does this by relaxing, sitting down and breathing out. The scratching ends abruptly, and he is gradually controlling, or releasing, his hidden anxiety. Then, he clarifies the immediate anxiety,

regarding the negativity with which he is accustomed to being treated, owing to his psoriatic appearance and his feelings of being a 'nobody'.

Having opened up this far, he seems able then to take a further step. He mentions his marriage breakdown and his recent increase in alcohol intake. As if having let go too much, he resumes his scratching for a short while. Then in a visible and outward expression of his anxiety, he permits himself a few tears.

During his follow up visit, Jeff is clearly less troubled by his symptoms and he expresses gratitude for being offered some understanding.

Itch and its impact upon quality of life and career opportunities

Arruda and De Moraes (2001) looked at the impact of psoriasis and stated: 'Psoriasis may produce a range of quality-of-life impacts as complex as those from more debilitating and life-threatening diseases...Over time, these may cascade into significant decrements in overall emotional wellbeing, social functioning, productivity at work or school, self-care activities and self-esteem.'

Someone who is afflicted with itchy dry skin and so is constantly scratching may be cast as an outsider. Penzer (2002) notes: 'The psychological impact of itch can be enormous, with the physical sensation of itch being akin to torture for some patients...The act of scratching also leads to difficulties in social situations, as scratching is seen as socially unacceptable because of the connotations of dirtiness or infestation.'

Case study four

David is in his fifties and works in a bar. This means he has to stand up while serving the public. He also travels to work standing up on the tube. He feels unclean because he is constantly aware of his dry flaking skin falling into his shirt and shoes. This increases his need to scratch at itchy hot skin and this in turn becomes embarrassing due to the reactions of the public with whom he travels and serves during the day. He says that this undermines his self-

confidence to the point where it is affecting his concentration at work.

Clearly, David is living in a vicious circle. His physical symptoms are inducing him to scratch his itchy skin. This action exacerbates his anxious state. David's career depends upon his ability to be confident, self-assured and presentable. If he is feeling that those whom he serves are viewing him negatively, he may be focusing upon a negative construction of himself and in so doing, losing the ability to function at work at an optimum level.

Hirt et al (1969) add: 'A disorder involving excessive and difficult-to-manage production of skin waste, most obviously psoriasis, must therefore carry a risk of being seen as "dirty".'

Psychogenic itchiness and diseases

Buxton (2003) writes: 'It is sometimes very difficult to help a patient with a persistently itching skin, particularly if there is no apparent cause. Pruritis is a general term for itching skin, whatever the reason.'

Also, according to Buxton (2003) 'parasitophobia is characterised by the patient reporting the presence of small insects burrowing into the skin which persists despite all forms of treatment'.

Case study five

John and Sheila attended as a couple having been referred after insisting that they were constantly being infested with itchy insects. John offered himself as a spokesperson for them both.

With very little preamble, John requested his partner to remove her undergarments to reveal 'a breeding ground for insects within the lining'. Simultaneously, John produced a glass jar with paper folded within it. He proceeded to unfold the paper and asked me to identify the insect. My impression was that the paper contained a minute piece of dirt or dust. This was disputed by John who insisted it was the remains of an insect and that the insect was similar to those infesting Sheila's undergarments. My impression of the undergarments

was that they were clean and without infestation. John and Sheila had been given numerous treatments and emollient therapies, but still remained unsatisfied. They were unimpressed by my attempts to reassure them that they were not infested.

It was clear to me that John and Sheila had minimal physical symptoms. The clue to their itching being more psychogenic was largely found in my own emotional response to the mood of the consultation. I immediately felt uneasy and yet they appeared to be calm, quietly spoken and non-confrontational. It was only when I did not offer a physical explanation and suitable medication that they became more edgy and louder in their insistence. At this point John and Sheila removed their undergarments and produced the glass jar as evidence. It was interesting that my mood intensified from unease to a mixture of anger and bewilderment.

I was forced to conclude that these were the very feelings that John and Sheila might have been burying within themselves and were now able to project onto me. In concentrating upon a 'physical infestation' they were able to avoid the hidden emotional 'infestation'. This had been covertly communicated to me, thus creating tense feelings within me instead.

Papadopoulos and Bor (1999) state that neurological excoriation is 'believed to have a psychological aetiology. They [patients] often insist that their problems are medical and resist a psychological explanation for them.

Since the skin is the most accessible organ of the body, patients may also scratch, pinch or manipulate their skin in such a way that it appears to be abnormal. Patients who present to GPs or dermatologists with these conditions may do so because it is easier for them to admit to having a physical problem rather than a psychological one'.

New approaches and solutions

In these cases, emphasis should be focused on the importance of a nursing

assessment and history-taking. This involves closely observing and analysing body language. Nurses should take a psychosocial history, including posture, tone of voice, eye contact (or lack of it), and the type of words used. They urge the nurse to build up a picture of the patient's lifestyle.

In the case studies above, it is clear that assessment has to incorporate more than just physical observations of the skin. It is of great value to be aware of the mood and tone of the clinic consultation. A full awareness of the impact of the condition can often be as much to do with the assessor's own feeling and reactions as it is to do with those of the patient being assessed.

This was most evident in the case of John and Sheila. Without recognition of the psychological mood of the consultation, I could have come to the conclusion that a simple anti-infestation medication may have been sufficient to satisfy John and Sheila's needs. At a superficial level this might be true, inasmuch as they may well have gone away content in the short term.

However, the further information gleaned by closely observing the clinical situation allows a more in-depth and useful assessment of the true impact for John and Sheila.

Discussion

These brief reflections upon the nature of itch and its bio-psychosocial impact touch the surface of a complex and poorly understood area of psychodermatology.

The case studies are designed to stimulate further reflection by the reader on their own practice. The author hopes that a single clear message stands out, namely that itch cannot be thought of as a purely physical symptom.

It is intrinsically bound-up with psyche and psychosocial development, and is often used as a communication tool when verbal communication proves inadequate. **DN**

Key Points

- ▶▶ Itching can be seen as more than simply a physical symptom – it can also be viewed as a symptom of distress and anxiety.
- ▶▶ Assessment should incorporate more than just physical observations of the skin. Nurses should also be aware of the mood of the clinic consultation
- ▶▶ Itch is intrinsically bound-up with patient's psyche and psychosocial development, and is often used as a communication tool when verbal communication proves to be inadequate.
- ▶▶ Awareness of the impact of itch can often be as much to do with the assessor's own feeling and reactions as it is to do with those of the patient being assessed.

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