The nursing management of infantile eczema

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Atopic eczema, also referred to as dermatitis, is an inflammatory chronic skin disease that commonly develops in childhood. This condition ranges from birth to 12 years old and affects both genders equally. Atopic eczema affects people of all ages but children in particular. The prevalence rate for atopic eczema is around 15–20% in children and 2–10% in adults (Scottish Intercollegiate Guidelines Network [SIGN], 2011), and accounts for 30% of all dermatological consultations in primary care (Shamssain, 2007).

KEYWORDS:
Dermatology ■ Eczema ■ Infants ■ Dermatitis

The clinical presentation of infantile atopic eczema is mostly active on the face and the flexures of the skin, mainly the neck, wrists, ankles, the periorbital skin and antecubital fossa. It is characterised by symptoms of intensive pruritus leading to excoriations, caused by dryness of the skin, scaling, erythema and lichenification. Lichenified eczema is the thickening of the skin as a result of continuous scratching and inflammation (National Eczema Society, 2015).

Complications of infantile eczema can be triggered by bacterial infections, most commonly *Staphylococcus aureus*. In some cases, this infection can develop into impetigo, causing sores and blisters (Berth-Jones et al, 2006). Eczema herpeticum, commonly known as herpes simplex virus, is another type of infection that requires urgent intervention. It can present itself with vesicles and erosions that can rapidly deteriorate (Lin, 2011). The National Institute for Health and Care Excellence (NICE) (2007) guidelines recommend that parents of children with eczema should be educated about the condition to be able to identify early signs of infection and seek medical advice. It is evident that this condition has a negative impact on the individual's and family's quality of life.

AETIOLOGY

The aetiology of atopic eczema is extremely complex and not yet understood. It is associated with environmental and genetic factors that make children more predisposed to developing eczema. Children of parents who have asthma or hay fever have a higher risk of developing the disease.

Although there is still much to learn about the disease, it is believed that environmental factors such as pet hair; house dust mites; pollen; and certain foods, such as cow's milk, can contribute to the development of the condition (NICE, 2011).

Genetically, the mutations in the filaggrin gene are linked to atopic eczema. Filaggrin plays an important role in the epidermal barrier and is critical to the conversion of keratinocytes to the lipid squames that compose the stratum corneum, or the outermost barrier layer of the skin. Any dysfunction in this barrier allows increased exposure to irritants that may trigger the development of atopic eczema. The mutations in the filaggrin gene are likely to underlie almost half of eczema cases (Lawton, 2014). The relevance of this finding is that it reinforces the importance of regular use of emollients in the management of the condition.

MANAGEMENT

It is imperative to initiate treatment of atopic eczema with an emollient that works by repairing the levels of moisture on the first layer of the skin. These should be used liberally and frequently; at least three times a day (NICE, 2007). The emollient therapy includes using bath additives with bath oils and soap substitutes that contain antimicrobials. Maintaining this regimen should reduce the incidence of eczema flare and help to reduce the bacterial colonisation on the skin. The protective actions of the emollient can also be increased by using bath additives.

As part of combined emollient therapy, topical corticosteroids are also introduced to control flares, however, to treat moderate-to-severe eczema, it is important to consider their side-effects and possible long-term cutaneous adverse reactions (Carr, 2009). In more severe cases such as lichenified eczema, dermatologists can also use narrowband UVB (phototherapy), which is a specific ultraviolet wavelength used to treat the condition.

Although this type of therapy is just as effective as the use of topical steroids, it is not often recommended as the risks of side-effects are high. This treatment can be time-consuming for children and their families as they have to attend at least three sessions a week (British Association of Dermatologists [BAD], 2013).
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Bandages can also be used to manage lichenification and reduce pruritus, which facilitates the absorption of steroids and improves their efficacy; however, if there are any signs of infection, these should be discontinued (Carr, 2009).

**EDUCATION**

Lack of knowledge about therapy leads to poor adherence, and subsequently to treatment failure. The National Eczema Society is an important source of support, providing information and practical advice about treating and managing the disease. Community nurses can also be key in monitoring and explaining the importance of adhering to prescribed therapy, although many parents are often reluctant about the use of topical steroids because of potential side-effects (Moore et al, 2006). It is important to highlight that topical steroids will significantly improve the individual’s quality of life and that early treatment can control the disease as well as the development of other conditions.

Unfortunately, a cure for atopic eczema has yet to be found, but individuals experiencing the disease can still lead a normal life. It is extremely important to have a full understanding of the condition, its causes, treatments and how to manage it well. This knowledge will help to control its exacerbation and alleviate its symptoms. Parents must be educated about the variety of treatments and what factors cause their children’s eczema to flare and it is important that more research is carried out and that new preventative methods are discovered.

**REFERENCES**


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