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Atopic Dermatitis and its Management by the First Contact Doctor

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ABSTRACT

Atopic dermatitis is a chronic inflammatory skin disease that affects a large number of pediatric patients between 2 and 17 years of age. Typical symptoms include intense itching, erythema, and scaling of the skin. Atopic dermatitis has been found to be associated with decreased quality of life for patients and their families. Diagnosis is made by clinical evaluation and differential diagnosis with other dermatologic diseases.

Treatment is based on the severity of the disease and the age of the patient. Topical treatments are the first line of treatment, while systemic treatments are reserved for patients with severe atopic dermatitis who do not respond to topical treatments. In addition, other treatments, such as light therapy, biological therapy and allergen-specific immunotherapy, have been evaluated in patients with atopic dermatitis. A multidisciplinary approach and appropriate patient and family education are critical to the successful management of atopic dermatitis in pediatric patients.

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INTRODUCTION

Atopic dermatitis (AD) is a chronic inflammatory skin disease characterized by dry, itchy skin and recurrent rashes. AD affects 10-20% of children worldwide and is considered one of the most common skin diseases in childhood. AD can affect patients of all ages, but children are most affected, with a peak incidence in the first five years of life. AD is a complex disease that is believed to result from the interaction between genetic and environmental factors.[1,2]

EPIDEMIOLOGY

Atopic dermatitis is a very common disease worldwide, and the incidence varies according to geographic location and ethnicity. In developed countries, the prevalence of AD in children varies from 10 to 20%, whereas in developing countries, the prevalence is much lower, ranging from 2 to 5%.[3]

AD affects boys and girls equally, although some studies suggest that girls may have a higher incidence. The disease is more common in patients with a family history of atopic dermatitis, asthma or allergic rhinitis.[4]

AD can begin at any age, but is most common in young children. The incidence of the disease increases in early childhood, with a peak incidence between 2 and 6 years of age. It is estimated that 60% of patients with AD develop the disease before 1 year of age, and 90% before 5 years of age. AD may persist into adolescence or even adulthood, although the severity of the disease usually decreases with age.[3]

The prevalence of AD also varies by race and ethnicity. AD has been shown to be more common in patients of Caucasian and Asian origin than in patients of African-American or Hispanic origin. In addition, AD has been shown to be more common in Western countries than in Eastern countries.[4]

AD may also be associated with other atopic diseases, such as asthma and allergic rhinitis. It is estimated that 50% of patients with AD also have asthma, and 70% have allergic rhinitis.[5]

CLINICAL MANIFESTATIONS

Atopic dermatitis (AD) is characterized by recurrent skin eruptions that present as red, raised areas that may be itchy,

scaling and oozing. AD rashes can appear anywhere on the body, but are most common on the face, neck, wrists, hands, feet, and back of the knees.[6]

AD presents in varying degrees of severity, from mild cases with dry, scaly skin to severe cases with extensive, pruritic inflammatory lesions. The affected skin may be dry and scaly, with surface fissures that may become infected. The skin may also be thickened and/or excoriated due to repeated scratching.[7]

The symptoms of AD may be worsened by certain factors, such as sweating, stress, allergies, dry or cold weather, detergents and personal care products. In some patients, AD symptoms may be cyclical, with periods of acute flare-ups followed by periods of remission.[8]

DIAGNOSIS

The diagnosis of atopic dermatitis is based on the clinical presentation of the disease and the patient's history. There is no specific diagnostic test for AD, and the diagnosis is based on the presence of chronic pruritus and recurrent eruptions.[9]

To make the diagnosis of AD, physicians may perform a complete skin evaluation and take a detailed medical history from the patient and family. Skin evaluation may include observation of affected areas, palpation of lesions, and performing patch tests to identify allergens.[10]

In addition, clinical scores can also be used to assess disease severity and measure response to treatment. Clinical scores include the Atopic Dermatitis Severity Index (ADSI), the Atopic Dermatitis Quality of Life Index (ADQOL) and the Scoring Atopic Dermatitis Index of Atopic Atopic Dermatitis (SCORAD).[11]

In some cases, allergy testing may be performed to identify specific allergens that may be exacerbating the symptoms of AD. Allergy testing may include skin tests, patch tests and blood tests for specific IgE.[12]

TREATMENT

The treatment of atopic dermatitis is based on the severity of the disease and the age of the patient. The goal of treatment is to reduce symptoms and prevent exacerbations of the disease.[13]

Topical treatments are the first line of treatment for most patients with mild to moderate atopic dermatitis. Topical treatments include emollients, topical corticosteroids and topical calcineurin inhibitors. Emollients are used to keep the skin moisturized and improve the skin barrier function. Topical corticosteroids are used to reduce inflammation and itching in the affected skin. Topical calcineurin inhibitors are also used to reduce inflammation and pruritus in the affected skin and are reserved for patients with mild to moderate atopic dermatitis who do not respond well to topical corticosteroids.[14]

In patients with severe atopic dermatitis, systemic treatments such as oral immunomodulators such as cyclosporine and methotrexate may be used. These treatments are used to reduce inflammation throughout the body and are reserved for patients with severe atopic dermatitis who do not respond to topical treatments.[15]

Oral antihistamines are also used to reduce itching in patients with atopic dermatitis. Oral antihistamines are mainly used in patients with moderate to severe atopic dermatitis.[14]

In addition, other treatments, such as light therapy, biological therapy and allergen-specific immunotherapy, have been evaluated in patients with atopic dermatitis. Light therapy, such as ultraviolet (UV) light therapy, may be useful in patients with severe atopic dermatitis. Biologic therapy, such as dupilumab, has shown promise in the treatment of severe atopic dermatitis. Allergen-specific immunotherapy, such as subcutaneous immunotherapy and sublingual immunotherapy, has been used in patients with atopic dermatitis and known allergies.[16]

CONCLUSIONS

In conclusion, the treatment of atopic dermatitis is based on the severity of the disease and the age of the patient. Topical treatments are the first line of treatment for most patients with mild to moderate atopic dermatitis. Systemic treatments are reserved for patients with severe atopic dermatitis who do not respond to topical treatments. In addition, other treatments, such as light therapy, biological therapy and allergen-specific immunotherapy, have been evaluated in patients with atopic dermatitis.

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