ATOPIC DERMATITIS
AND SECONDARY INFECTION

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Atopic dermatitis is a common, chronic inflammatory disease of the skin. This eczematous skin disorder usually begins in early infancy and 40% of cases continue into adulthood. The main symptom is itch. Acutely, erythema and oedema are common. Vesicles, exudation and crusting may also occur. The more chronic picture includes papules and lichenification. Flares occur, which can be spontaneous or precipitated by a number of factors.

Eczematous skin is particularly prone to secondary infection. This is in part due to small breaks in the skin due to dryness and thickening of the skin, as well as persistent scratching. This begins a vicious cycle, as infection causes eczema to worsen and become more resistant to the usual treatment.

MANAGEMENT

Management of uncomplicated atopic dermatitis should address itch, dryness, inflammation and superinfection. Oral antihistamines, moisturisers, emollients, topical steroids and calcineurin inhibitors therefore constitute standard treatment.

Commonly, superinfection is caused by Stapylococcus aureus or Streptococcus pyogenes. This impetiginised eczema presents with weeping and crusting, Preauricular fissuring, or small superficial pustules. A topical antibiotic (such as fusidic acid) is indicated until infection has cleared, which is approximately two weeks. Fusicidic acid is a tetracyclic antibiotic derived from the fungus Fusidium acremonium. It is related to the non-beta lactam cephalosporins. Fusidic acid has bactericidal activity against *S.* aureus by inhibiting bacterial protein synthesis.

Concomitant use of topical steroid (eg.: 1% hydrocortisone or betamethasone depending on severity) is also recommended. Recent studies have shown that even once-daily treatment with topical steroid and antibiotic for two weeks substantially decreases the density of organisms and offers significant clinical improvement.

In the case of folliculitis, an oral antibiotic such as flucloxicillin should be used in adults and cephalexin in children. Abcesses may require incision and drainage together with oral antibiotics. Signs of systemic toxicity such as fever, chills, malaise and lymphadenopathy require hospitalisation, blood culture and IV antibiotics.

SECONDARY INFECTION

Secondary infection with herpes simplex virus (eczema herpeticum) is also possible. The presentation is that of vesicles and blisters in clusters. These may progress to punched out erosions if not treated. Signs appear 5-12 days after contact with an infected individual, who may or may not have visible 'cold sores'. Eczema herpeticum may affect any site, but is usually seen on the face or neck where there is active or previous atopic dermatitis. Chicken pox may also severely exacerbate atopic eczema. Management is with oral acyclovir for 10 days. This reflects the importance of distinguishing between viral and bacterial superinfection. Molluscum contagiosum is also a common complication of atopic dermatitis. MC

References available on request.