Editorial on Guidelines for the Management of Atopic Dermatitis in Singapore

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As a chronic relapsing inflammatory skin disorder affecting 1 in 5 of school children by 16 years of age in Singapore, atopic dermatitis (AD) poses a significant burden of disease.[1] The pruritus can cause sleeplessness and sleep deprivation, leading to psychosocial problems that disrupt the quality of life for the child and the family. While the childhood prevalence here of AD is similar to that in most developed countries, adult-onset AD appeared to be more common in Singapore, comprising 14% of all cases of AD seen at the National Skin Centre.[2] It is estimated that close to 50% of early onset AD children may have persistent AD in adulthood. Given that AD can be managed by primary care practitioners, paediatricians, allergists and dermatologists, the Guidelines for the Management of Atopic Dermatitis in Singapore by Tay et al,[3] in this issue of Annals, is timely as best practice guidelines, that are developed by a group of experienced dermatologists.

Since the growth of the internet revolution, it is not uncommon to find that many AD patients have tried alternative treatments, sensing that current treatments do not get to its "root" cause.[4] Indeed, steroid phobia leading to under-treatment is more of an issue than its overuse, in the management of AD in developed countries. It should be noted that there is no evidence from randomised controlled trials (RCTs) to suggest that skin thinning is a problem from the intermittent use of topical corticosteroids (TCS). The reality of under-treatment is that weak steroids may not clear the skin and patients develop flare ups because they stop using TCS, expecting the treatment to be curative. In these guidelines, a stepped approach to management with appropriate potency of TCS based on severity is provided, escalating to the use of phototherapy and systemic therapy with immunosuppressive drugs such as cyclosporine and azathioprine in severe AD. This stratification by disease severity also provides a guide on when patients need to be referred to a dermatologist.

The use of topical calcineurin inhibitors (TCIs) has witnessed a decade of experience and black box warnings. Despite safety data from long-term registries and large studies in infants, there have been conflicting results on the cost-effectiveness of TCIs as first-line therapy in mild to moderate AD.[5,6] Therefore, the use of TCIs in AD is best reserved for: 1) maintenance therapy in patients who have steroid phobia; and 2) steroid-sensitive areas, for e.g. eyelids, face and skin folds where TCIs may be considered as first-line treatment, as proposed by the authors. For maintenance therapy, it should be noted that proactive treatment with twice weekly mild-to-mid potency TCS and even the use of moisturisers alone can help in the maintenance of improvement. What has not been evaluated is which of these strategies would be most cost-effective and safe for patients.

The article alluded to the lack of benefit from topical antibiotics and antiseptics in either clinically infected or uninfected skin, which we concur with. A recent RCT study showed a worsening of both subjective and objective eczema scores when topical/oral antibiotics were used in mild-moderate AD.[7] Use of topical fusidic acid (FA) has also been shown to be associated with an increased risk of antibiotic-resistant *S. aureus* locally and should be avoided.[8] Another common clinical practice is the use of a TCS/antibiotic combination. Although *S. aureus* load on the skin can be decreased with TCS/antibiotic combination,[9,10] none of the studies have shown superior clinical efficacy in AD. The use of combination topical, e.g. betamethasone 17-valerate plus FA should therefore be discouraged in the light of potential antibiotic resistance.[8,11] In disease flares caused by secondary infection with *S. aureus*, we share a differing view from the authors in that oral antibiotics are preferred over topical antimicrobial agents. Cultures are also recommended when patients do not respond to standard treatment. Though the benefits of diluted bleach baths have

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been recommended as an anti-infective measure for AD, we find this option rather unacceptable for the parents of our patients in the local context. This is echoed by a recent finding of high non-adherence rate in a Hong Kong study.[12] Other antiseptic washes like triclosan can be used instead.

Food allergy is the other controversial area in AD. In this respect, there is evidence that food allergy may play a role only in infants and young children younger than 3 years with extensive, recalcitrant AD. This group of patients should be evaluated by a paediatric dermatologist or a paediatric allergist as the interpretation of skin prick testing and specific IgE tests needs correlation with the clinical history. These tests should not be performed "routinely" in other patients with AD. Sensitivity to inhalant allergens may instead be more common.[13] The authors have also enunciated that the exclusion of foods during pregnancy and breastfeeding has not been shown to have a preventive role. However, daily application of full-body emollients in neonates at high risk of AD within 3 weeks of birth can prevent the disease.[14]

In the institutional setting, where more complex or severe AD patients are being managed, it is also critical to provide patient and caregiver education beyond medical treatment. Adequate time for education and demonstration of treatments has been shown to be crucial in the management of AD.[15] Nurse-led educational clinics and implementation of the eczema action plan can provide positive steps towards patient or caregiver empowerment and self-management. Written plans can be used in any clinic setting to help patients or caregivers know the practicalities of topical therapy, and reduce call-backs and walk-ins.

In conclusion, these guidelines would serve well for primary care practitioners, dermatologists and other specialists who manage AD patients. Not only should there be a tiered approach to therapy, there should be appropriateness in where patients are best managed based on disease severity. In this respect, primary care practitioners, particularly those equipped with dermatology skills, may be better placed to manage the great majority of mild AD in the community.

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