Atopic dermatitis: meeting the unmet needs



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Helping children with atopic dermatitis (AD) can occasionally be a daunting task. It is not uncommon to encounter young children with generalized eczema when the armamentarium available to treat them is quite limited. This is especially true for children under two years of age when many licensed drugs are not recommended, so physicians often have to resort to using off-label drugs. In Hong Kong, topical calcineurin inhibitors (TCIs) are licensed for children aged two years old or above, leaving topical steroid as the only licensed drugs to treat AD in this age group. In addition, the most recent breakthrough in treating severe AD using biologics (e.g. dupilumab) could only tackle children aged 12 years old and above. Although topical steroid is the first line treatment for AD, our local prevalence of steroid phobia amongst parents is high, in the range of 35%.[1] As a result, both orthodox and unorthodox self-initiated treatments such as bathing with "金銀花" and "Dead Sea Salt" are commonly employed by parents. Obviously, the clinical results of these treatments may be unpredictable or could even lead to an eczema flare. It is always advisable to take reference from our most recently updated guidelines in 2021 from Hong Kong and Asia when recommending treatment for children with atopic dermatitis.[2-3]

In particular, the Guideline published in the Hong Kong Journal of Paediatrics by Dr. Leung *et al.* has suggested a few important ways to tackle these unmet needs.[2] While emollients and bathing practices form the foundation of therapy, identification and avoidance of triggers is another important part of AD management. With the rapid advances in the field of allergy, tests available to identify potential triggers are becoming more accurate. The use of skin prick tests, specific IgE tests, atopy patch tests and food challenge tests are more readily available and advanced tests such as component resolved diagnostics represents a milestone in the field of food allergy diagnosis.[4] While it is important to have an evaluation on the potential triggers for AD, it is similarly important to avoid allergy tests with unproven diagnostic value provided by community and online suppliers.[2] Trigger avoidance has to be specific to achieve clinical improvement and elimination diets have to be targeted to avoid malnutrition. Indiscriminate elimination diet for AD is not advocated especially for children in a period of rapid body growth requiring a comprehensive array of nutrients.[5]

In addition to managing allergic triggers, patient education should be an integral part of consultation for families with AD. With information on both proper therapeutic options and untested self-care philosophies available on the internet, parents tend to be intrigued when coming into our consultation room. Furthermore, not only is the home care for children with AD practically tedious, but it may also be one of the most challenging jobs in view of its pervasive impact on daily life from eating, bathing, sleeping to learning. Psychosocial issues such as depression, anxiety, stress and guilt feelings of patients and caregivers, if left unattended, may end up with extreme tragedies as exemplified by the local case of suicide and homicide related to AD.[6] Supportive counselling during consultations would be very helpful and a detailed discussion with caregivers and patients on the daily care plan, impact on daily life and psychosocial issues may even be lifesaving.

Moreover, there has been a paucity of drugs available to AD children below the age of two years. These may be related to the unavailability of safety data of drugs in this age group. Some TCIs are licensed down to three months old in overseas countries, yet was only indicated for children two years old and above in Hong Kong. As such, American and European guidelines have recommended off-label use of 0.03% tacrolimus and 1% pimecrolimus in this age group if clinically indicated.[7] This should be highlighted at local professional educational opportunities to broaden our treatment options.

First line treatment of AD using topical steroid is often hampered by steroid phobia and its potential side effects. On the other hand, TCIs are plagued with its lymphoma risks in animal studies. FDA's continuation of its black box warning despite no clinical studies have ever shown any association with malignancies from TCIs' use has not helped with the situation. It is to our delight that novel drugs without worries of the aforementioned side effects are coming into our drug list. This year, topical crisaborole has been registered in Hong Kong for children two years old or above with mild to moderate AD. In the near future, topical sodium cromoglycate may be another promising treatment option. Together with the long list of biologics waiting to be licensed for AD treatment, the light to end the AD whirl is ever brighter.

Meeting the unmet needs is the dream of every party taking care of children with AD. A collaborative effort is required to improve our management and would involve various disciplines ranging from scientists, researchers, drug manufacturers, patient groups to medical and allied health professionals. With more scientific advances and a better understanding on this distressing chronic illness, our cumulative experience is gaining increased momentum to accomplish this goal.

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