Treatment updates for atopic dermatitis in children

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Atopic dermatitis (AD) is the most common chronic skin disease in young children, with a prevalence ranging from 10% to 20%. Onset of disease presents during the first year of life for most children (60%) and will persist into adulthood in 10% to 30% of children.

The burden of disease associated with AD is significant and includes sleep disturbance, attention-deficit/hyperactivity disorder (ADHD), and depression, all of which can adversely impact a child’s normal socialization development. As such, accurate diagnosis and effective treatment are vital.

This was the message from Anthony J Mancini, MD, professor of Pediatrics and Dermatology and division head of Dermatology, Ann and Robert H. Lurie Children’s Hospital of Chicago, Northwestern University Feinberg School of Medicine, Chicago, Illinois, who discussed how to diagnose AD and differentiate it from other skin conditions, as well as issues related to treatment, in his presentation “Atopic dermatitis 2017: An update for the pediatrician” at the American Academy of Pediatrics National Conference and Exhibition on Monday, September 18.

Mancini discussed the critical need of educating parents and caregivers of the child with AD on the goals of therapy. These include minimizing inflammation, restoring and maintaining barrier function, relieving pruritus, and prevention and treatment of infection. He encouraged pediatricians to issue a written action plan to parents and caregivers of children newly diagnosed with AD.

In addition, Mancini underscored the need to consider all therapeutic goals when designing treatment, and discussed particular issues related to treatment and specific updates on treatment approaches of which pediatricians should be aware.

For minimizing inflammation, he stressed the importance of aggressive treatment with topical anti-inflammatory agents (including topical corticosteroids, topical calcineurin inhibitors, and topical PDE4 inhibitors). He mentioned that topical steroids are still the mainstay of therapy. “Don’t be afraid to use them,” he said.

For restoring and maintaining the barrier, Mancini discussed newer evidence showing the effectiveness of using early emolliation in high-risk-infants.
He cited data showing that neonates at high risk of AD treated with full-body emollient therapy daily starting at age 3 weeks had a 50% relative reduction in AD compared with neonates not treated with emollients.

For relieving pruritus, Mancini discussed the use of topical anti-inflammatory therapy and the current data on the relatively new ointment called crisaborole that was approved for mild-to-moderate AD in 2016 for children aged at least 2 years. He emphasized that the role of crisaborole is still evolving. He added that, although the use of a nighttime antihistamine is controversial, he suggested its use to help control nocturnal itch and restore the child’s sleep cycle.

For prevention and treatment of infection, he presented data showing the effectiveness of sodium hypochlorite (bleach), particularly in children with moderate-to-severe disease and/or frequent bacterial infections.

Mancini ended his presentation with a discussion of the new topical and systemic therapies on the horizon, including the anti-interleukin-4 receptor antibody dupilumab, approved by the US Food and Drug Administration in March 2017 for adults with moderate-to-severe AD. A pediatric study is currently under way to test the safety and tolerability of dupilumab in children aged older than 6 years to younger than 18 years, he said.

**COMMENTARY**

The availability of a new topical agent for atopic dermatitis (AD) for children aged older than 2 years and the expectation that a new systemic biologic agent will soon be available is raising hopes that it is AD’s “turn at bat.” This is the most frequent disorder that pediatricians refer to my Pediatric-Dermatology practice, representing well over 20% of the children I see. However, this is a disease of the whole family.

The family of a moderately severe atopic child may lose 1.5 hours of sleep a night; a severely atopic child’s family may lose 2.5 hours. Studies show that there is an increased rate of anxiety and depression in the parents of atopic children. Marital discord and its impact on the atopic child and siblings is not unusual. Quality of life studies have documented the severe impact on the family caused by AD, an impact that is equal to that found in families with juvenile diabetes mellitus.

Whenever a significant cutaneous problem is clearly visible on a child’s hands and face, both the child and the family may pay a psychosocial price. In addition, the frequent medical appointments required to care for atopic children lead to loss of school time for the child and loss of work time for parents. Treatment is also very costly, incurring a multibillion dollar cost of care annually. Siblings may suffer from relative lack of attention and the whole family may have to financially sacrifice fun, such as vacations.

As atopic children get older, if their condition persists, they may be the target of bullying in school, on playgrounds, or online. This may lead to social isolation, depression, drug use and other habituations, and obesity.
The holistic pediatrician must assess the psychosocial well-being of the atopic patient, the siblings, and the families, all of whom may be paying a heavy price. One multicenter study of pediatric psychosocial dysfunction in patients in Pediatric Dermatology clinics demonstrated that 13% of children seen met the criteria for such dysfunction. However, the number went up in those children whose disorder was perceived to have a greater impact on their appearance.

As we encourage the creation of better treatments for the skin of our atopic patients, a parallel increase in attention addressing psychosocial concerns would be of considerable benefit for the atopic children and their families.

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