

So let's discuss the prevalence of atopic dermatitis in the United States. Through a pediatric standpoint, we have a very high prevalence. Around 12% to 15% of children having atopic dermatitis in the first few years of life, and then we know there's a set of atopic dermatitis that persists on into adolescence as well as across the years, new onset of atopic dermatitis. And once you get to adult prevalence, depends which data set you look at, probably around 8% of adults may have active atopic dermatitis, so we know that atopic dermatitis is a common condition. We see it in our clinics, and some atopic dermatitis gets better over time. But, again, a subset of it persists.

But one of the big issues with atopic dermatitis is the impact on the individual. So from a severity classification standpoint, there's a lot of atopic dermatitis in the first few years of life that's on the milder side, but there's a significant amount of it that is moderate and severe. And while these are Gestalt classifications, the point is that atopic dermatitis can have significant impact on the individual, both in terms of the manifestations of the eczema in that individual-- I'll come back to that-- but also secondary impact as well, both comorbidities and other associated aspects of the disease process.

So let's take a look at atopic dermatitis and its manifestations. We have eczema, the rashes that occur associated with an incredible amount of itch. And then itch itself, which can promote rash associated with psoriasis and dry skin, and then scratching behaviors and breaks in the skin, and barrier dysfunction, which is partially intrinsic and genetic in some individuals, but also made worse by inflammation in the skin.

We have oozing in the skin. We remember that the term eczema in Greek means to boil over, and that's a manifestation of inflammation. There's changes in the microbiome with staph aureus colonization being part of the disease as well.

There's a tremendous amount of sleep disturbance associated with the itch associated with atopic dermatitis with lots of secondary changes as well. So we have the clinical manifestations of the disease in terms of the rashes, which are the signs. We have the symptoms with pruritus being a really significant one, and we have these secondary changes, which include sleep disturbance, and then [INAUDIBLE] into a whole set of what I'll call comorbidities.

So what are the comorbidities associated with atopic dermatitis? Well, we have our traditional atopic comorbidities, which include allergic conditions-- food allergy is something that many times isn't there at the beginning of atopic dermatitis in the first few months or year of life but develops over time. Then we have a higher rate of asthma in individuals with atopic dermatitis. Allergic rhinitis is seen in at least a third of atopic dermatitis patients by a year or two of age and something that can persist on into adults. Environmental allergies are part of the process as well.

Other comorbidities include psychological effects, anxiety and depression, especially as we have more moderate to severe disease. We also have higher rates of ADHD, attention deficit hyperactivity disorder, associated with atopic dermatitis. And then there's the whole impact on daily living, what we call quality of life when we're measuring it up in scores but in terms of the individual impact, the huge impact on school activities in younger kids and work performance in older adolescents and adults as well. And there's an expanding list as well of secondary processes that are influenced by the eczema.