

Resistances I get from parents, they hear about this injected medicine and worry am I giving them something that's dangerous. And then the children, of course, are nervous about the injections. So first of all, we've been giving children insulin for years.

It is very easy to teach parents or children to inject dupilumab. And once they've done it and they realize that it doesn't really hurt very much, it becomes much easier. Moreover, the drug works so quickly that the children and parents are delighted so they actually want to continue to use it.

Now let me address first the speed of response. Most of the response that you get, and the peak response is at 12 weeks, but most of the response occurs within the first 4 weeks. So this is a treatment that works quickly.

When we did the clinical trials for dupilumab, the first patients, of course, were adults. The first patient ever treated was a patient I had taken care of for decades. We had never been able to satisfactorily clear him. He would get phototherapy, he'd be better, but never clear. And he might be better for a year or two years and then he'd need phototherapy again.

That was probably one of the best atopic dermatitis patients that I had that were responsive to phototherapy, many are not. The first injection in the first patient at the lowest dose, we knew the drug worked. It was just miraculously effective right away. So this is a drug you know works quickly.

The second point that I would make is that it has a durable effect. If you look at patients beyond 12 weeks and go to a year, it continues to work just as well. The peak effects around 12 weeks and that curve stays flat. The patients improvement and EASI score is flat for 52 weeks.

The other question that I get is what happens if you stop. Do I have to be on this my whole life? So what I say to parents is you don't have to be on it your whole life, but you're going to see that your child is going to do so well that you and he or she will want to stay on the drug because it's a drug that's very safe. I do explain the side effect of conjunctivitis, but otherwise, it's very safe and it continues to work.

If you stop it, which some patients do and some patients have a reason to, in an average of approximately three months most patients atopic dermatitis recurs and then you can retreat the patient. The problem with doing that is that upon re-treatment to patients who, for example, achieved an EASI 75, only about 80% of them will go on to achieve it again. So you've lost almost 20% of patients. One out of five responders stop responding.

I've seen a graph that was presented at a meeting where they showed the line of 80.3% responding and they put it over a line of naive patients who had not received dupilumab and the response is almost the same. The point though is that we're taking responders and now 20% of them are not responding. That is very different than a dupilumab naive population.

We expect there's going to be a small group of patients, and it ends up being about 20%, who don't respond well to it. So I would tell patients if you have to come off it, you can. If you want to come off it and there's no real reason to come off it, you can but I'm going to try to talk you out of it because if a drug works so well and it is literally changing your life, why would you stop it knowing that you have a one in five chance of the drug not working when you retreated yourself.