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The Dietary Management of Cow's Milk Protein Allergy in Infants

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Welcome to *Clinician's Roundtable* on ReachMD. This medical industry feature, titled "The Dietary Management of Cow's Milk Protein Allergy in Infants," is sponsored by Nestle Health Science. Here's your host, Dr. Charles Turck.

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Dr. Turck:
This is *Clinician's Roundtable* on ReachMD, and I'm Dr. Charles Turck. Joining me to discuss how we can manage cow's milk protein allergy in infants is Dr. Kalpesh Thakkar who's a Pediatric Gastroenterologist and currently practices with the Memorial Hermann Medical Group in Sugarland, Texas. He was previously an Assistant Professor of Pediatric Gastroenterology, Hepatology and Nutrition at Baylor College of Medicine.

Dr. Thakkar, welcome to the program.

Dr. Thakkar:
Thank you for having me.

Dr. Turck:
So, let's just dive right in, Dr. Thakkar. Is cow's milk protein allergy the most common food allergy in infants? If so, what can you tell us about the prevalence of allergies, and specifically, cow's milk protein allergy in infants?

Dr. Thakkar:
Yes, definitely. Cow's milk protein allergy is by far the most common food allergy in infants. And overall, it's important to know that in general the incidence of allergy is increasing worldwide. We're seeing this even more in developed countries where, for example, here in the United States, it's affecting more than 20% of our population.

What's perhaps even more staggering and concerning is that the incidence is as high as 35% in infants and children.[4] Food allergy is the most common cause of allergy in infants,[1] with the overall incidence being 8 to 10%.[5] And currently, the most prevalent food allergy in infants is cow's milk protein allergy, especially in infants and children under the age of 2.

Dr. Turck:
With that prevalence in mind, how do you know when an infant or child may have cow's milk protein allergy? Are there symptoms that help to identify it?

Dr. Thakkar:
Yes, there certainly are. In almost all cases there are some symptoms that can help you identify it. These can be as simple as something like infant colic, or perhaps even more serious symptoms like anaphylaxis, or even failure to thrive.

The important thing to know is that cow's milk protein allergy can induce a really wide variety of symptoms that can be very variable in terms of intensity as well.[1-3] With that being said, it's important to think about these symptoms in 3 major categories. First, dermatologic

or skin manifestation, second, gastrointestinal, and third, respiratory.

When we're thinking about our dermatologic symptoms, we're thinking mostly about signs like eczema, atopic dermatitis, angioedema or urticaria.

In terms of gastrointestinal symptoms, these may present as vomiting, reflux, diarrhea, constipation, or even blood in the stool. And when we're thinking of respiratory symptoms, these can include rhinitis, wheezing, otitis media, or even a chronic cough.

Dr. Turck:
Interesting, it certainly seems like there's a wide array of symptoms. And I'm guessing the early detection of these symptoms and appropriate dietary interventions are an essential part of minimizing the impact on infants and the family caring for them, is that correct?

Dr. Thakkar:
That's exactly right. Early – early recognition and intervention is really important. And when you consider and look at the dietary management of cow's milk protein allergy in infants and children, the most important initial step is to avoid the antigen, or the allergen, that's involved.

So, what this means for breastfed infants is that the mothers will avoid the antigen, or the allergen, from their diet, but for our formula-fed infants, the parents should look at feeding them a formula that has been proven to be hypoallergenic. These formulas are generally going to be either your extensively hydrolyzed proteins, or your amino acid-based protein.

Dr. Turck:
So with that being said, are there any guidelines on when to feed which formula?

Dr. Thakkar:
Absolutely, and I'm glad you asked that question because there are some pretty clear guidelines here, and it's important that we talk about them. So, first, only infant formulas that are clinically demonstrated to be hypoallergenic should be used for the dietary management of cow's milk protein allergy in infants. But, also, experts recommend that when cow's milk protein allergy is suspected or diagnosed, that we first use an extensively hydrolyzed formula and then, if symptoms persist, we move to an amino acid-based formula.

Dr. Turck:
Now Dr. Thakkar, earlier you mentioned that formula-fed infants should be fed a formula that's been proven to be hypoallergenic. So what makes a formula hypoallergenic?

Dr. Thakkar:
The American Academy of Pediatrics Committee on Nutrition really did a nice job of defining hypo allergenicity in formula, and what they stated was that the formula should be shown to ensure with 95% confidence, that 90% of infants with documented cow's milk protein allergy will not react with any defined symptoms to the formula under a double-blind placebo-controlled condition, otherwise known as a clinical trial.

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Dr. Turck:
For those just tuning in, you're listening to *Clinician's Roundtable* on ReachMD. I'm Dr. Charles Turck, and today I'm speaking with Dr. Kalpesh Thakkar about the management of cow's milk protein allergy in infants.

So Dr. Thakkar, now that we have a better understanding of what hypoallergenic infant formulas are, let's zero in on one in particular. What can you tell us about Extensive HA?

Dr. Thakkar:
Yeah. So, Extensive HA is produced by Nestle Health Science. It's, um, an extensively hydrolyzed, ultra-filtered formula that's been proven to be hypoallergenic.

It's, um, made with 100 percent whey protein, which is a high-quality protein that actually undergoes a special enzymatic hydrolysis process, along with ultra-filtration, that makes it well-designed for low residual allergenicity.

And also, important to note that it's been shown to promote adequate growth and weight gain.

Dr. Turck:
And are there any features of Extensive HA that make it different from other hypoallergenic extensively hydrolyzed formulas on the

market?

Dr. Thakkar:
Yes, and these are important to talk about and point out. So, Extensive HA is the only hypoallergenic formula that contains the probiotic Bifidobacterium. And this is important because it's been shown that infants that have cow's milk allergy actually have a decreased level of Bifidobacterium in their GI tract as compared to infants that are non-allergic.

So, potentially supplementing with Bifidobacterium may help those infants colonize with those beneficial bacteria and develop a more balanced microbiota into the future.

Extensive HA has also been designed with a unique fat blend, which includes about 49% medium-chain triglyceride, and this is important because in some infants that have cow's milk protein allergy, you can have damage to the intestinal mucosa and that damage can result in some degree of malabsorption, which can include malabsorption of fat. So, when you have the inclusion of something like your medium-chain triglycerides in a formula, this is very helpful because these triglycerides do not require traditional fat metabolism and they're more easily and more readily absorbed into the system.

Dr. Turck:
Before we close, Dr. Thakkar, are there any key points on Extensive HA that you'd like to highlight for us?

Dr. Thakkar:
Yeah. So, I think it's important to remember that Extensive HA is the only extensively hydrolyzed formula that's made with 100% percent whey protein, as well as it's the only one that has your Bifidobacterium and probiotic. In addition to that, medium-chain triglycerides are present to facilitate fat absorption, and the formula contains the recommended amount of DHA to support both brain and eye development. Finally, it's a lactose-free and sucrose-free formula. So, the carbohydrate blend is perfectly designed for digestive tolerance.

Dr. Turck:
Thank you, Dr. Thakkar. And as that brings us to the end of today's program, I want to thank you for joining me to share your thoughts on Extensive HA and the dietary management of infants with cow's milk protein allergy. It was great speaking with you!

Dr. Thakkar:
Thank you, it was my pleasure.

ReachMD Announcer:
This program was sponsored by Nestle Health Science. If you missed any part of this discussion, visit ReachMD.com/Clinician's Roundtable. This is ReachMD. Be Part of the Knowledge.

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