

Transcript Details

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Transforming Alzheimer's Care: Anti-Amyloid Therapies and Emerging Genetic Approaches

Announcer Introduction:

Welcome to *NeuroFrontiers* on ReachMD. On this episode, we'll hear from Dr. Marc Haut, who's the Director of the Rockefeller Neuroscience Institute's Memory Health Clinic at West Virginia University in Morgantown. He'll be discussing advancements in treating Alzheimer's disease. Here's Dr. Haut now.

Dr. Haut:

Four years ago, here at the RNI, we used the first anti-amyloid monoclonal antibody with our first patient here. So here's how these medicines work. They don't fix it. They don't stop it. They don't reverse it. But they slow it down. So you have a buildup of this amyloid plaque. It occurs 10 to 20 years before you even know you have the disease. Once it reaches this toxic level, you get the second bad protein, which is tau tangles. People who are symptomatic very early in the course are still accumulating amyloid and will still be starting to produce tau. If you can reduce that amyloid level early on, you can stop that cascade from really getting a full head of steam.

It is technically disease-modifying. It goes after one of those pathologies. And we know the patients to give it to because we can see that they have amyloid. It's complicated, and there are side effects associated with it, but in the right hands and used the right way with the right guidelines and monitoring, for some people, it clearly slows the progression of the disease. One of the interesting things we've learned most recently about these anti-amyloid agents is when you give those, the amount of tau that you have also goes down some. So you slow the production and the expression of that, which is the toxic part. Even though it's not directly targeting it, it has an indirect effect to slow it down.

There are some diseases that the genetics have been worked out really well and that they know what the fault in the genes is, and they know what to go after and how to correct it. We're not quite there yet with Alzheimer's, but there was one initial trial where they went after this particular gene. It's also associated with another disease called frontotemporal dementia. They showed that they could introduce something to target this gene into the nervous system, into the body, and it was safe, it didn't hurt people, and they showed a decrease in the amount of tau that was present. So this is initial safety study.

It's challenging because that gene is associated with tau, but we know that there's many different genes and small variations in genes that can be expressed in Alzheimer's patients, and so it's not just one gene that you have to go after. There are some individuals who have autosomal-dominant disease who we know are going to get the disease and when they're going to express it, and they have very specific genes that they have. In those cases, it would help, but in the sporadic cases, which is 95 percent of people, it could be any of a number of genes that are causing this. So finding the right gene combination in an individual is a long way away, but using gene therapy to get in and change something that inhibits or decreases the amount of that bad protein is doable regardless of what your particular genetic makeup is. So we are excited about it.

Announcer Close:

That was Dr. Marc Haut talking about current and emerging treatment approaches for Alzheimer's disease. To access this and other episodes in our series, visit *NeuroFrontiers* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!