

Transcript Details

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Advancing CIDP Research: Targeted Therapies, AI Integration, and Immunological Insights

Announcer:

You're listening to *On the Frontlines of CIDP* on ReachMD. On this episode, we'll discuss the future of chronic inflammatory demyelinating polyradiculoneuropathy, or CIDP, care with Dr. Karissa Gable, who's an Associate Professor of Neurology at Duke University Medical Center. Let's hear from her now.

Dr. Gable:

There's a lot of recent advancements going on. I think overall, the goal in some of these new upcoming clinical trials and targeted research has been primarily focused on developing more targeted therapies. I think that understanding the pathophysiology a little bit further is also a focus of research, and so there are different platforms of technology that are available now that previously were unavailable when we were trying to research the immunology of CIDP. And so we do know that, of course, it starts with macrophage mediated demyelination. There are complex interactions between the adaptive and the innate immune system, including complement mediated disease and T-cell and B-cell activation. That next step will be to further evaluate which patients these targeted therapies might benefit best. Understanding more about the platforms—currently we're looking at our single-cell RNA sequencing and proteomics that haven't really been performed extensively in patients with CIDP—will really open up a lot about the understanding of the underlying pathophysiology and the immunology, which will also expand our knowledge in a way in how to use these targeted therapies.

Artificial intelligence is such a hot topic right now, of course, and I think it's phenomenal, and a lot of it has a lot of uses. I struggle to find exactly how we can use it to diagnose. We try to use algorithms, and of course, those aren't perfect, and so we'll have to think a little more closely about how to use that with diagnosis, since our diagnosis does rely on clinical phenotype and history, but also a lot of physical exam findings. I think there are ways. There actually was a recent poster presented at the AAN that actually went over one way was to use a calculator in order to highlight how you could ascertain if something was a mimic or not for CIDP. And so that might be a way that you could incorporate AI as a diagnostic tool. And I think monitoring could be, in a similar way, using some of the outcome measures in order to kind of monitor apps or patient outcome measures that are done at home so we could highlight a flare before patients even knew really the flare was coming on, or something along those lines.

Riliprubart is a complement inhibitor that is currently in clinical trials—in MOBILIZE and in VITALIZE. MOBILIZE is a standard of care refractory trial that's a 1:1 drug versus placebo trial. It will be really interesting—it's currently enrolling. And then VITALIZE is an IVIG plus drug versus drug alone plus IVIG placebo trial, going into open-label extension. In both of those trials, it will be very interesting in the phase III level. The phase II data showed some promising improvement with that medication and showed 50 percent of the refractory patients—9 out of 18—improved, but that was a phase II study. So I think these two phase III studies, MOBILIZE and VITALIZE, will be very important to follow to see what complement inhibition looks like with respect to riliprubart. There are other complement inhibitors in development as well with different companies.

As we learn more about the individual patients and discover more potential antibodies, as we did with the paranodopathies that led to the discovery of that subclass that's now just considered a different entity of demyelinating neuropathy that responds better to B-cell depletion, we might find that there's even genetic contributing factors. There's been some research done on that to show that patients who have a variable response or a lack of response to treatment actually have genetic propensity to have a variable response, and so there's some promoter variants that have been discovered of that already. So I think those things, in addition to the further advances with the other platforms that are now available to analyze immunology with CIDP, will then lead to more personalized therapies with these targeted therapies that are being developed now.

Announcer:

That was Dr. Karissa Gable discussing the future of CIDP care. To access this and other episodes in our series, visit *On the Frontlines of CIDP* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!