Niti Goel, MD: Depletion of KLRG1+ T Cells in Clinical Trial of ABC008 in Inclusion Body Myositis

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Niti Goel, MD, discusses her ACR Convergence presentation entitled, "Depletion of KLRG1+ T Cells in a First-in-human Clinical Trial of ABC008 in Inclusion Body Myositis (IBM)."

Rheumatology Network interviewed Niti Goel, MD, on her upcoming ACR Convergence presentation entitled, "Depletion of KLRG1+ T Cells in a First-in-human Clinical Trial of ABC008 in Inclusion Body Myositis (IBM)." Goel is the Chief Medical Officer for Abcuro and Adjunct Professor at Duke University. We discuss the study design, the clinical significance, and challenges facing rheumatologists today.

Rheumatology Network: Can you tell me a bit about the study design that your team utilized in this study?

Niti Goel, MD: This is a an open-label, multicenter single ascending dose study evaluating ABC008. It has what we call a classic 3+3 design, where we expand the cohort as necessary to evaluate additional patients. It was designed to evaluate ABC008 administered subcutaneously to individuals that have inclusion body myositis for which there are no effective therapies. The study is being conducted in Australia.

RN: What were the results of this study?

NG: Well, the study is still ongoing. So, we've reported the results from our initial dose of ABC008 in that study, which was 0.1 mg/kg given subcutaneously.

RN: Were you surprised by the results of this study?

NG: Overall, we were excited to see that we're depleting the target cells with this dose. ABC008 is a monoclonal antibody designed to target KLRG1+, which is a marker of highly differentiated cytotoxic T cells. And these T cells have been shown to be instrumental in the pathogenesis of inclusion body myositis. So, in depleting these T cells, we demonstrated the proof of mechanism we were hoping to see with ABC008 at our lowest dose planned. Based on our preliminary modeling data, we expected that we might see depletion.

RN: And what is the clinical significance of these results?

NG: So, the clinical significance of these results, especially if we tie it to the preliminary evidence supportive of potential effectiveness in terms of improvement in the muscle and functional aspects of the people with IBM, is that this may be a drug that is beneficial for IBM because it's targeting the pathogenesis of the disease.

RN: Does your team plan on doing any further research on this topic?

NG: We are discussing potential future trials. We are planning because of the depletion seen with ABC008 of a cell type which is CD8+CD57+ or large granular lymphocytes. Because of the depletion seen, we are planning to initiate a trial in T cell large granular lymphocytic leukemia (T-LGLL) next year. This is important because there are patients both with inclusion body myositis, as well as with rheumatoid arthritis, that can have T-LGLL.

RN: In your opinion, what is the biggest challenge facing rheumatologists today?

NG: I think having enough workforce is one of our biggest challenges. Also the bars that are being set for new treatments for other rheumatologic diseases to get them to people who need them may limit our ability to make new treatment options available.

RN: Is there anything else that you would like our audience now, before we wrap up?

NG: The results are very exciting, especially in terms of what it means for individuals that have inclusion body myositis, since there are no effective therapies for the treatment of this disease. Obviously, further details from subsequent cohorts are going to give us more information about the recommended phase 2 doses for subsequent studies.