Transcript Details
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Understanding Residual Cardiovascular Risk in CKD and T2D

Announcer:
This is *Diabetes Discourse* on ReachMD. On this episode, Dr. John Ostrominski will be sharing insights on systemic inflammation and residual risk in patients with chronic kidney disease and type 2 diabetes, which he spoke about at the 2026 American Diabetes Association Scientific Sessions. Dr. Ostrominski is a fellow specializing in cardiovascular disease and obesity medicine at Brigham and Women's Hospital and Harvard Medical School. Let's hear from him now.

Dr. Ostrominski:
Individuals with chronic kidney disease and type two diabetes have some of the highest risks of adverse cardiovascular outcomes that we routinely encounter in clinical practice. Given that high risk, there's a great deal of interest in understanding what pathways of risk might be modifiable with things we can do at the bedside. And so, of course, we have an array of therapeutic objectives relating to glycemic control, optimal blood pressure management, optimal lipid lowering, and core disease-modifying therapies that have also been shown to not only improve the disease trajectory in diabetes, but also blunt risks of kidney disease progression.

Even when we focus on all those parameters of risk, individuals in this population still have high risk. And that persistent risk of adverse outcomes after we optimally manage everything that we can modify is termed "residual risk." One of the key pathways of residual risk actually seems to be inflammation, specifically low-grade systemic inflammation within the body that may arise from various different unique pathways.

So we've applied this thinking about inflammation and residual risk in a population of individuals with chronic kidney disease and type 2 diabetes. This population comes from two trials that were very similar in their overall approach, patient profiles, and conduct. FIDELIO-DKD and FIGARO-DKD both recruited people with chronic kidney disease with albuminuria and type 2 diabetes.

These two trials were pooled together in a participant-level pooled analysis called FIDELITY. And it's in this population that we explored the interplay between systemic inflammation and outcomes. Over half of individuals in this population had an elevated hs-CRP at baseline. And again, keep in mind that this is a well-treated and a global population. That's a really big deal and potentially important for screening too.

The next important question that we evaluated was, again, what is this interplay between systemic inflammation and obesity? And what we found was a very strong and steep association between hs-CRP levels and body mass index. The risk of an elevated hs-CRP level at baseline was nearly ninefold higher among individuals with a BMI of above 40 compared with individuals with a normal BMI. But importantly, this risk still emerged among those with a BMI in the overweight range, typically between 25 and 30. So these risks emerged early, and they steeply increased across the BMI spectrum.

Point three evaluated the association between hs-CRP levels and adverse cardiovascular outcomes. And what we saw was that hs-CRP levels were actually steeply associated with that risk, indicating that, again, this is likely an important pathway for risk that can be modified to potentially improve outcomes. But the critical thing that we saw, which is actually very novel and relatively unique, was that this association between hs-CRP and adverse outcomes was steeper as you moved up in the BMI spectrum. Those people who had a normal BMI actually did not have much of a risk gradient between cardiovascular outcomes and hs-CRP, but this risk gradient became very steep with higher BMI. And what that suggests is there are different types of inflammation, and it may be the inflammation that comes from obesity that's the core driver of cardiovascular outcomes, in this population at least.

And then of course, there are many therapies that we use in clinical practice, including finerenone. In this population, it's been shown to substantially reduce the risk of kidney disease progression and of cardiovascular events. And you might wonder, do those benefits apply

equally across the spectrum of hs-CRP? What we found was that irrespective of what someone's hs-CRP level was at baseline, finerenone still substantially improved cardiovascular outcomes.

Announcer:
That was Dr. John Ostrominski discussing residual risk pathways in chronic kidney disease and type 2 diabetes. To access this and other episodes in this series, visit Diabetes Discourse on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!