

Therapeutic Strategies for Cardiovascular-Kidney Metabolic Syndrome: Addressing the Interwoven Triad of Heart Failure, Chronic Kidney Disease, and Diabetes

View from an Expert Bonus Content: **CARDIOLOGY**

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Hello, I'm Pam Taub. I'm a cardiologist, professor of medicine, and director of preventive cardiology at UC San Diego in La Jolla, California. Thank you for rejoining us after viewing the MLI program presented at the World Congress on Insulin Resistance, Diabetes, and Cardiovascular Disease in Los Angeles. I am looking forward to sharing with you some brief views and key takeaways from the perspective of a cardiologist.

One of the key components of the American Heart Association presidential statement is the early identification of subclinical disease. That includes prediabetes and metabolic syndrome.

Many times in clinical practice, these patients are underappreciated as having high future cardiovascular risk. Patients with prediabetes often have just a mild elevation in their hemoglobin A1C typically between 5.7 and 6.3 but don't yet meet criteria for diabetes. Patients with metabolic syndrome present with mild hypertension, mild dyslipidemia, increased waist circumference. Sometimes we don't put all of these mild abnormalities together to really appreciate the true burden of future cardiovascular risk.

There's a lot that we can do for these patients. For patients with both metabolic syndrome and prediabetes, one of the first things we can do is focus on lifestyle intervention. That includes helping them have a more Mediterranean-type diet. What I mean by that is a diet that is rich in fiber with vegetables, a diet that has a good amount of protein, and a diet that minimizes processed foods.

A Mediterranean diet does allow for some lean meats such as chicken and foods that are high in omega-3 such as salmon. The reason I say Mediterranean diet versus some of the other diets is because this is the diet that's most evidence-based. We have landmark clinical trials such as the PREDIMED study that shows that the Mediterranean diet is important in preventing future cardiovascular disease.

We want to really talk to patients about the quality of their diet and then also the quantity. Just because someone is eating healthy doesn't mean they can eat as much as they want. We do need to limit the calories that people take. The caloric requirements are different at different ages. That needs to be personalized.

Then we also need to emphasize physical activity. What I tell my patients is try to do at least 45 minutes of some type of physical activity, whether it's walking, aerobic exercise, strength training. I also emphasize diversity in the exercise regimen. There's some people that just like to do aerobic exercise, but what we've found is you need to do a lot of different types of exercise, including strength training, which is really important for skeletal muscle and for preventing sarcopenia.

In addition to these lifestyle interventions, there are some pharmacologic therapies that we can utilize in our patients with prediabetes and metabolic syndrome. That includes good control of their blood pressure. Sometimes I will use metformin, which is widely available and generic, to lower that [00:08:00] hemoglobin A1C. I will also focus on lipid management. Some of that will be diet modification, but there may need to be the institution of pharmacologic therapies.

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My three takeaways as a preventive cardiologist for treatment of CKM syndrome is to utilize a multidisciplinary approach for the treatment of these patients. What we need to be thinking about is not only utilizing clinicians such as cardiologists, endocrinologists, primary care providers, but also to utilize members of our extended team such as dietitians, exercise physiologists, and pharmacists to provide holistic care for our patients with CKM syndrome. When we use all of our team members to provide care, we can really optimize the care for these patients and improve overall outcomes.

In addition, we need to be thinking about how we can utilize biomarkers such as uACR and imaging modalities such as coronary calcium score to detect subclinical disease early. The earlier we detect subclinical disease, the more we can do to modify the trajectory of disease and to prevent sequelae such as diabetes, heart attack, and stroke, so early detection is critical. Finally, we need to synergize pharmacotherapy with lifestyle therapy. It's not one or the other. Many times, when patients engage in appropriate lifestyle therapy, you can minimize medications. We need to really always be looking at how can we optimize both concomitantly.

Thank you again for joining us for this short view from a preventive cardiologist. We hope to see you again soon.