Women & Heart Disease: Are We Still At A Loss?

PODCAST 30

Intro:
"Because what happens is that the symptoms in men are presumed to be the gold standard. And the symptoms in women are considered atypical. Well, they're not atypical. They're typical for women. And we then have to define what is specific to women."

00:47
Dr. Jane Caldwell
Today *On Medical Grounds*, we will be speaking with Dr. Nanette Wenger. Dr. Wenger is Professor of Medicine in the Division of Cardiology at the Emory University School of Medicine. Her career is a series of firsts. Let me explain. She received her medical degree from Harvard Medical School in 1954 as one of their first female graduates. During her postgraduate work at Mount Sinai Hospital in New York City, she became the first woman to be chief resident in the cardiology department. Throughout her career, Dr. Wenger has focused on heart disease in women, despite the consensus in the medical community that this was a disease found primarily in men. In 1993, Dr. Wenger co-wrote a landmark review article that demonstrated that cardiovascular disease affects women as much as men. Prior to this point in time, women were more likely to die from the disease because their symptoms were not recognized. She also helped write the 2007 guidelines for preventing cardiovascular disease in women. As a pioneer in gender disparities in medicine, Dr. Wenger has devoted her career to understanding how coronary artery disease affects women.

Hello Dr. Wenger, welcome to *On Medical Grounds*. It's such an honor to be speaking with you.

Dr. Nanette Wenger
Good morning, delighted to participate.

02:23
Dr. Jane Caldwell
Considering all the disciplines you could have specialized in as a medical doctor, why did you choose cardiology?

Dr. Nanette Wenger
Well, during my time at the Harvard Medical School, two of my main mentors were cardiologists. And those were Dr. Herrman Blumgart, who was chief of medicine at the Beth Israel Hospital, and Dr. Louis Wolff of the famous Wolff-Parkinson-White syndrome. And they taught me how exciting the area of cardiology was becoming. It was the beginning of the time when what we learned in the laboratory could be translated to the bedside. And that was just an enormous advance, as a matter of fact, that has continued to this day.

I feel almost every month and year that I'm practicing frontier medicine because there's something new, there's something improved that improves the care of patients and their outcomes.

03:30
Dr. Jane Caldwell
When did you first become aware of gender disparities in the treatment of cardiovascular disease?

Dr. Nanette Wenger
Well, it really was not gender disparities. When I joined the Emory University School of Medicine as a faculty member in the Division of Cardiology, I was responsible for the inpatient care and the outpatient care of cardiac patients at the public hospital, which was Grady Memorial Hospital, an inner-city safety net hospital. And as I saw women patients in the hospital having heart attacks, as I saw them in the clinic having problems with heart failure, with blood pressure, with angina, and went to the literature, there was nothing there specific to women. The data from all of the studies were derived from populations of middle-aged and virtually all Caucasian men and the assumption was that this extrapolated to the world.

Well, we certainly know now that is not correct. And I started to look for data in women. And all of what came up was the early information from the Framingham Heart Study that women had more angina. And angina, as you know, is the pain of myocardial ischemia. But the women were having angina in Framingham. They were probably not dying until later.

They were probably not dying from myocardial infarction until later than the men. The men were dying in the prime of their life, and that was getting the attention. But nonetheless, I was seeing the women who were impaired by their symptoms and who had very serious cardiovascular endpoints, and there was no information as to whether what we learned from their male peers could or should be translated.

And I contacted my professional societies that I was involved with, the American Heart Association, the American College of Cardiology. And essentially the shrug response was, it's not important, there's no reason to think that there's any difference. And I worked and tried to work with, it was then the National Heart Institute, lung and blood had not been yet added, and worked with them to say, we really need to explore it. We need to see what data there are. We need to see the knowledge gaps. And after a number of years, we did have a workshop. And as well you know, typically a workshop becomes a conference in a year or two. Well, the gap was almost six years, but we did have this conference on coronary disease in women, which to me was a very exciting event.

A number of leaders in cardiology, and as a matter of fact, in OB-GYN as well as the NIH staff participated and the result was a manuscript in the *New England Journal of Medicine* which addressed coronary heart disease in women and, at that time, the *New England Journal of Medicine* editor said to me, as the first author on the paper, that to his knowledge this was the first time that the terms coronary disease and women were paired in the title of a manuscript in a major medical journal. Well, the most exciting part about this, Jane, is that people did pay attention. And perhaps my major contribution was asking the question. And people began to look to say, are there differences?

Are there differences in the pathophysiology? Are there differences in the presentation? Are there differences in the symptoms? Should there be differences in diagnostic tests? Should there be differences

in therapies? And we began to document that there were differences in outcomes, that women did not do as well as their male peers.

07:41

Dr. Jane Caldwell

Wow, that's an amazing story. Thank you so much for asking that question. Because of your research, we now know that cardiovascular disease is the number one killer of women in the United States. One of the main reasons for the disparity in treatment is that heart disease symptoms can be different in women versus men. Could you explain the differences, please?

Dr. Nanette Wenger

Well, they are not different. There's essentially a wider spectrum. And let's talk just about coronary disease because typically for both women and men, one of the major symptoms is chest pain. Men are noun-verb people and women are adjective-adverb people. And often when women describe their symptoms, they describe it in more detail. They'll say they're short of breath, they're tired, they're heavy, they have some discomfort in their jaw and their neck and their arm and their chest. But in this litany of detailed description, the chest pain is often missed. And what we realize now, and as a matter of fact, anytime you study disease in women, it does translate to important information for disease in men, because not all men have the typical classic symptom of a Hollywood heart attack, crushing chest pain and collapse. But we began to realize that some of this perhaps is a cultural difference. And I have written that we need a cultural shift in the way we present health data about women to women, to their clinicians, and to the general public.

Because what happens is that the symptoms in men are presumed to be the gold standard and the symptoms in women are considered atypical. Well, they're not atypical. They're typical for women and we then have to define what is specific to women. And we've seen this in our clinical experience as we've learned over the years that the traditional risk factors for coronary disease that everyone knows are similar for women and for men, but they often have a differential impact. Some of them more severely impact women. For example, diabetes is a far worse risk for coronary disease for women. Women tend to have more complications from the hypertension. Smoking exerts a more adverse effect in women than in men, but we really have not paid attention to the sex specific risks for women. And that is some of the education that we are trying to do not only to women, but to their clinicians and to the public health sphere. Because the hypertensive complications of pregnancy are really a prelude to future cardiovascular disease.

A woman who develops hypertension during pregnancy or diabetes during pregnancy, or particularly preeclampsia, is more likely to have hypertension later in life, diabetes later in life, coronary heart disease, heart failure, and the like. And somehow, artificially, the OB-GYN history is separated from the general medical history. You know, in our electronic medical records, what is there? The number of pregnancies and the number of live births but nothing about the complications which really identify the woman at risk who should receive much more intensive evaluation and intervention. We know that autoimmune systemic disease predominates in women and these women are more likely to have coronary heart disease. Indeed, the woman with lupus is more likely to die from coronary disease than from lupus per se. We know, we've learned in the VIRGO trial that particularly the young women have depression as an important antecedent and that has not been ascertained as well. And these are sometimes called ancillary or adjunctive or modifying factors. Well, they may not be. They may, and particularly for the younger women who are the at-risk population right now, they may be the most important indicators to the clinician that here is a

woman at risk who deserves intensive preventive interventions, diagnostic studies, et cetera. So, we have a long way to go.

12:36
Dr. Jane Caldwell
Over 60 million women—about 44% in the United States—are living with some form of heart disease. You spoke recently about how we have been falling behind in awareness and care. Can you share some of these recent findings and statistics?

Dr. Nanette Wenger
Well, again, I expect that what we have learned is that probably women and men have comparable, or maybe women have a slightly greater occurrence of coronary disease. But what we see is that there is later recognition when the disease is more advanced, there is less preventive therapy, there is less attention to symptoms. But let's not fault the medical community. Let's fault the way we inform the public. Because now actually it has been 20 years since the advocacy and education campaigns, the National Heart, Lung, and Blood Institutes; the Heart Health campaign; and the American Heart Association's Go Red campaign, are telling, trying to say, women, your heart is vulnerable to heart disease. And what happened during the first decade of that education is that we increased the awareness among women that they were vulnerable to heart disease from the 30% to the upper 50%. That was a major change, but still half of the women were unaware that this was their major risk. Same was the case with their healthcare providers.

And more recently, when we've gone back and queried, we realized that we have lost a decade of education and information way back down to the lack of awareness. And the lack of awareness is most prominent among the women at greater risk, the young women, and the women of racial and ethnic minorities. So, this is really important and in a recent query, when younger women, women of racial and ethnic minorities, were asked did they know the symptoms of a heart attack, most of them did not. And if the women don't know the symptoms of a heart attack, they will not present to the emergency room during that window where we have the opportunity to save myocardium. They will come later on if the pain persists or recurs when the damage to the heart muscle has already been done.

15:12
Dr. Jane Caldwell
Well, I hope this podcast will add to the education of the women now coming up. Dr. Wenger, your life's work is an inspiration for all who are involved in prevention and the treatment of cardiovascular disease and for those affected by it. Thank you so much for taking time from your busy schedule to speak with us.

Dr. Nanette Wenger
Thank you. It was absolutely a delight and it's a delight to see so many people involved in the effort to improve the heart health of women in our country. Thank you so very much.

Dr. Jane Caldwell
And thank you for listening to the *On Medical Grounds* podcast. We know your time is valuable.

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