Women with Repeated Chest Pain, My Neighbor Jean, and the Multifunction Cardiogram (MCG)

REPRINT OF ARTICLE FROM
WILLIAM H BESTERMANN JR MD
JAN 10, 2022

Women with repeated chest pain represent the biggest disconnect between evidence and medical practice in the United States. Many women have heart attacks who don't have heart artery blockages. When I wrote about women and heart artery disease on Oct 26, 2021, my neighbor Jean called me. She said, "I read your article, and I might be one of these women." That got my attention. Jean is a wonderful lady. She is a great neighbor. She would do anything for you. She always has a smile on her face. She is a registered nurse, and her husband is a nurse anesthetist. They are both bright people. They are both medical professionals, and through no fault of their own, they did not know she had heart artery disease.

She had had chest pain multiple times and she sought medical attention. She did her part. She had more than one stress test on a treadmill, and she could only walk two minutes on a fifteen-minute test. That alone is a sign of heart artery disease. She had a heart artery catheterization and it was as clean as a whistle. No blockages at all. She saw a cardiologist several times. On her most recent visit, he told her that she did not have heart disease, she could stop aspirin, and she did not need to see him anymore. Every day across America, other women with repeated chest pain are hearing that same advice, and it is wrong. Too often, it is dead wrong. I have treated 25 women like this myself. It is a common problem and it is a threat to our wives, sisters, daughters, and our neighbors like Jean.

There is a new type of cardiogram, the multifunctional cardiogram (MCG) that uses computer technology to constantly improve the recognition of heart disease. The British Medical Journal is a very high-quality source of scientific information. This article examined the value of the MCG in detecting significant decreases in heart artery blood flow compared with heart artery catheterization, the "gold standard." The investigators proved the MCG is very accurate in detecting dangerous heart artery disease and could eliminate the need for many heart catheterizations. The usual non-invasive tests are very ineffective in selecting

patients who might benefit from a heart artery catheterization. The accuracy, portability, and low cost of the MCG make it a better tool to identify people with serious heart disease.

Dr. Joseph Shen and his colleagues developed the MCG. I have been talking to him for about six months and I have spoken with doctors from all over the world about their experience with the technology. I found it very intriguing, but I wanted to really work hard to convince myself it merits wide adoption. Dr Shen read Jean's story and offered to send Amy and Rami up from Jacksonville, Florida to do the test on Jean and me. Jean seemed to be the perfect candidate to give me some additional insight. The tests ranks your heart health from 0-22. Zero is perfectly healthy. 22 is late-stage heart disease. The test takes 6 minutes. Amy and Rami did the test in my den on my couch. The MCG machine was very small— about the size of a box of a dozen donuts. (Sorry, I just couldn't think of a better example) Jean's report is below and mine follows. The report is eight pages. This part of the report addresses reduced blood flow to the heart.

Jean's MCG Report

MCG Results

Ischemia Results

ID	Testing Date	ECG Tracing Quality	Local	Global	Severity
55252551	2022-01-05 14:46	good	Absent	Present	5.0
55252550	2022-01-05 14:44	good	Present	Absent	4.9
55252549	2022-01-05 14:43	marginal	Absent	Present	4.9
55252548	2022-01-05 14:41	good	Absent	Present	4.9
55252547	2022-01-05 14:40	marginal	Absent	Present	6.0

My MCG Report

MCG Results

Ischemia Results

ID	Testing Date	ECG Tracing Quality	Local	Global	Severity
55252556	2022-01-05 15:06	good	Present	Absent	4.5
55252555	2022-01-05 15:05	good	Present	Absent	3.5
55252554	2022-01-05 15:04	good	Present	Absent	3.5
55252553	2022-01-05 15:02	good	Present	Absent	3.5
55252552	2022-01-05 15:01	marginal	Present	Absent	3.5

The computer generated this report within just a few minutes. Fifteen minutes after our test we had our results and discussed diet, exercise, and optimal medical therapy with Dr. Shen. As you can easily see from the test, Jean's average score on the five EKG runs is just over 5 on average. She had no local blockage, but she had a blood supply problem impacting the entire heart. Even though I am an older man, my score was lower, my problem did not impact the whole heart, but I did have a local problem with blood flow. I had a catheterization two years ago that showed a 20% local blockage. Jean had a catheterization that was so perfect that she was assured she did not have a heart problem and that she could stop her aspirin. These tests reflect perfectly the difference between heart disease in men and heart disease in women. We both need optimal medical therapy that includes eating real food and exercising. Even better, the test is measuring chemical and electrical activity in the heart and the numbers can improve. We can track the response to treatment. Jean and I will have repeat tests in 6 months. I guess we will drive to Jacksonville. Like OMT, MCG is not widely available.

Multifunction Cardiogram Field-Data-Unit
Model CF-19

Dimensions:10.8 x 9.0 x 3.3-inc.

Here is more on the test and how it works. 100,000 people had their EKG signals strategically added to the system with various known common cardiac diseases to build a production database for system software development. Millions of people have had the test and the system is continuously improving its specific recognition of heart disease using artificial intelligence. "The MCG not only analyzes the heart but the whole of the electronic network, or the entire cardiovascular "intranet", that controls the cardiovascular system in its entirety". These electric signals provide insights into heart structure and metabolism.

Investigators from Japan studied the data of thousands of patients collected over the past five years from multiple centers, and concluded the following:

1.   MCG is 3 to 5 times more accurate than the conventional ECG

2.   MCG is 2 to 3 times more accurate than the echocardiogram .

3.   MCG is 2 to 3 time more accurate than nuclear, echo, ECG, and pharmacological stress tests

4.   MCG is reproducibly consistent with the current platinum standard - Coronary Angiography plus Functional Fractional Reserve,

5.   MCG may be much better in areas that coronary angiography cannot detect, such as small vessel microvascular disease and metabolic heart disease due to type two diabetes.

6.   MCG can quantify the degrees of functional loss of the myocardium and its interaction with other factors such as blood supply, metabolic disorders, such as diabetes, and heart failure of any cause

7.   MCG is just as accurate for women as it is for men

I want to thank Jean for sharing her story. She hopes it helps other women with chest pain. I also want to than Dr. Shen for making the test so convenient.

This excellent technology must be part of the revolution in bringing the treatment of heart patients up to date. Even in small towns in rural areas hundreds of miles from a big health center, primary care doctors and nurse practitioners in independent practice can identify patients with heart artery disease before they have chest pain, they can prescribe optimal therapy, and they can follow their progress with a test that takes 6 minutes. Our current approach to heart artery disease dates back to the time of the rotary telephone. Does anyone want to go back to that? Of course not. You can be healthier longer, but you need to approach your local leaders and help them understand that healthcare limitations need not be a barrier to progress.