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Tricky Heart May Cause Chronic Fatigue

Abnormal Heart Pumping After Exercise Linked to Chronic Fatigue Syndrome

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WebMD Medical News

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April 14, 2003 -- Many people with chronic fatigue syndrome may have a serious heart problem. A new finding hints that blood circulation problems may be an underlying cause of the mysterious illness.

Nobody is sure what causes chronic fatigue syndrome. As more becomes known, it's likely that some chronic fatigue patients will turn out to have different underlying problems than others. One major symptom, however, is feeling bad after exercise for more than 24 hours.

To Arnold Peckerman, MD, that sounds a lot like a blood circulation problem seen in some heart patients. These patients have something called left ventricular dysfunction, in which the main pumping chamber of the heart is weak. When you exercise, your heart pumps out more blood. But these patients' hearts actually pump less blood.

Peckerman's research team at the VA Medical Center in East Orange, N.J., used a sophisticated test to measure how well the heart pumps blood. They gave the test to 16 chronic fatigue syndrome patients, both before and after they exercised. They also tested four non-athletic volunteers. All of the patients' and volunteers' hearts' pumped normally during rest. After exercise, however, 13 of the 16 chronic fatigue patients' hearts pumped less blood than they did at rest.

"Basically we are talking about heart failure," Peckerman tells WebMD. "But chronic fatigue syndrome is a progressive disease. If we were able to detect this in its early stages, it is quite possible there might be a way to treat it."

Emory University cardiologist Joseph I. Miller III, MD, says Peckerman's findings on a potential cause of chronic fatigue syndrome are very interesting. He agrees that these patients have serious heart problems.

"Typically we see this in people with three-vessel heart disease," Miller tells WebMD. "A drop in [blood pumped by the heart] during exercise is not a typical response. It is actually a marker of significant coronary artery obstruction."

Given the severity of the finding, Miller wonders -- if heart problems might be a cause of chronic fatigue syndrome -- why more chronic fatigue patients aren't dying of heart disease. Both he and Peckerman agree that more study is needed.

What's happening to the hearts of people with chronic fatigue syndrome? It's too soon to tell, but Peckerman has a theory.

"There is some indication that chronic fatigue syndrome is precipitated by a viral infection," he says. "Some of the viruses that have been suspected have an affinity for the heart."

The virus infection might not be obvious, Peckerman suggests, because a diagnosis of chronic fatigue syndrome is made only after six straight months of unexplained fatigue. And that's only a minimum. Most patients suffer much longer before being diagnosed with chronic fatigue syndrome. That may explain -- if his research is confirmed in later studies -- why such a heart problem has not been found to be a potential cause of chronic fatigue syndrome before.

"It would appear that by the time they seek help and get diagnosed, the infectious process has run through and remaining signs of infection are very, very small," he says. "In the meantime, some organ damage may have been done. This may turn into symptoms later."

Peckerman reported the findings at this week's meeting of the American Physiological Society. His team is currently

looking for more chronic fatigue syndrome patients to participate in heart studies.

SOURCES: American Physiological Society annual meeting, 2003. News release, American Physiological Society. Arnold Peckerman, PhD, research physiologist, VA Medical Center, East Orange, N.J.; assistant professor of neuroscience, University of Medicine and Dentistry of New Jersey, Newark. Joseph I. Miller III, MD, assistant professor of preventive and general cardiology, Emory University, Atlanta.

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