Beware: Newly recognized heart cardiomyopathy is not always benign
9 March 2013

Even though a newly recognized cardiomyopathy, which mainly impacts women, is typically treatable, Tako-tsubo cardiomyopathy can also be deadly when compounded by other co-morbidities, such as heart failure, according to a study being presented March 9 at the American College of Cardiology (ACC) Scientific Sessions.

This condition, formally known as Tako-tsubo cardiomyopathy (TTC) and informally known as stress cardiomyopathy or broken heart syndrome, has abrupt onset of symptoms and is characterized by a distinctive left ventricular (LV) contraction profile. Ninety percent of the time, this condition affects women, who are usually middle aged and older, and the condition usually is triggered by a stressful event.

"Although TTC is typically reversible and considered to have favorable clinical outcomes, we have identified an important subset of patients, particularly those with severe heart failure and hypotension, who can have a substantial mortality risk," says the study's lead author Scott W. Sharkey, MD, a research cardiologist at the Minneapolis Heart Institute Foundation and a physician at the Minneapolis Heart Institute at Abbott Northwestern Hospital in Minneapolis. "It's also important that physicians are aware this is not a rare a condition, as it is present in nearly 10 percent of women who present to the hospital with suspected heart attacks."

MHIF researchers reviewed 250 TTC patients who presented to the Minneapolis Heart Institute at Abbott Northwestern Hospital between 2001 and 2012. Then, they segregated those TTC patients presenting with particularly severe heart failure and very low pressure, or hypotension (systolic blood pressure)

They found that severe hypotensive heart failure occurred in 45 patients. In this subset, 9 female patients died in-hospital despite aggressive treatment intervention, representing the only TTC-related hospital deaths in the 250 patient cohort.

Therefore, Sharkey and his colleagues concluded that TTC is not necessarily a benign condition. Severe hypotensive heart failure of severity necessitating vasopressor and/or intra-aortic balloon pump occurs in nearly 20 percent of patients. Also, all TTC-related hospital deaths occurred in the hypotensive heart failure subgroup with an overall mortality of 3.5 percent.

Importantly, triggering physical stressors related to severe co-morbid non-cardiac conditions (8) or advanced age (1) were present in all 9 non-survivors, Sharkey notes.

"Unfortunately, there are not any guidelines or criteria to instruct diagnosis and treatment of these patients at this time," says Sharkey. "Therefore, this study could be a starting point for this process, as it provides a more complete profile of the clinical spectrum of TTC and provides useful guidance for the effective management of these acutely ill patients."

To raise additional awareness and improve care of these patients, he adds that guidelines would be helpful at this time, in order to standardize diagnosis and treatment across varied healthcare settings.

Provided by Minneapolis Heart Institute Foundation