

Takotsubo (Stress) Cardiomyopathy (“Broken Heart Syndrome”)

The recent (February) Heart Health luncheon at the Bellwether focused on the cardiovascular condition commonly called “Broken Heart Syndrome.” The condition, originally called Takotsubo cardiomyopathy, is generally referred to as stress cardiomyopathy, stress-induced cardiomyopathy or apical ballooning syndrome (<http://www.mayoclinic.com/health/broken-heart-syndrome/DS01135>). Takotsubo cardiomyopathy was first recognized in Japan in 1990. (<http://circ.ahajournals.org/content/124/18/e460.full>) It was first recognized in the United States in 1998.

Stress cardiomyopathy “is a condition in which intense emotional or physical stress can cause rapid and severe heart muscle weakness (cardiomyopathy). This condition can occur following a variety of emotional stressors such as grief (e.g. death of a loved one), fear, extreme anger, and surprise. It can also occur following numerous physical stressors to the body such as stroke, seizure, difficulty breathing (such as a flare of asthma or emphysema), or significant bleeding” (<http://www.hopkinsmedicine.org/asc/faqs.html>).

Sharkey, Lesser, and Maron (<http://circ.ahajournals.org/content/124/18/e460.full>) report that in “85% of cases, takotsubo is triggered by an emotionally or physically stressful event that precedes the onset of symptoms by minutes to hours. Emotional stressors include grief (death of a loved one), fear (armed robbery, public speaking), anger (argument with spouse), relationship conflicts (dissolution of marriage), and financial problems (gambling loss, job loss). Physical stressors include acute asthma, surgery, chemotherapy, and stroke” (*Circulation*, American Heart Association).

“When first evaluated, patients with BHS (broken heart syndrome) are initially thought to be having massive heart attacks. However, the changes on their [ECGs](#) are not typical for a heart attack, and the cardiac enzyme tests that are supposed to confirm a heart attack are found not to be significantly elevated. Furthermore, when taken to the catheterization laboratory, their coronary arteries are found to be normal (whereas in true heart attacks, one of the coronary arteries would have been completely occluded). And finally, many of these patients are found to have a peculiar type of heart muscle weakness (or [cardiomyopathy](#)) on [echocardiography](#), where the apex of their left ventricle “balloons” outward in an unusual fashion” <http://heartdisease.about.com/od/womenheartdisease/a/brokenheart.htm>.

Other direct quotes from About.com Heart health Center may be of interest to the reader. “Many patients with BHS are initially in severe heart failure, and require aggressive and intensive cardiac care. With appropriate care, however, not only do they survive, but also their cardiomyopathy completely resolves within a few days to weeks.” “The unique features of BHS are that it occurs suddenly in otherwise healthy patients (usually women); it immediately follows an episode of severe emotional stress; the presenting symptoms strongly suggest a heart attack; and, while victims are at first critically ill with cardiomyopathy, with appropriate care they most often survive and the cardiomyopathy disappears entirely.” “The cause of BHS is unknown, but most experts blame it on an unusual response to stress hormones (such as adrenaline) after emotional trauma. The condition may be related to [Cardiac Syndrome X](#), which is caused by constriction of microvessels (tiny blood vessels) within the heart muscle” <http://heartdisease.about.com/od/womenheartdisease/a/brokenheart.htm>.

Check out this web site (<http://www.hopkinsmedicine.org/asc/faqs.html>) for Answers to “Frequently Asked Questions about Broken Heart Syndrome. Questions include: What is “stress cardiomyopathy?” What are the symptoms of stress cardiomyopathy? Is stress cardiomyopathy dangerous? How does sudden stress lead to heart muscle weakness? How does stress cardiomyopathy differ from a heart attack? I am under a great deal of stress every day. Is it possible that I have been walking around with stress cardiomyopathy and did not even know it? Who is at risk for getting stress cardiomyopathy? Once a person has had stress cardiomyopathy, will they get it again the next time they are under severe stress? If I have had stress cardiomyopathy, what is my long-term prognosis? How can I learn more about stress cardiomyopathy?”

Suggestions for Prevention of Heart Disease, including stress cardiomyopathy: health lifestyle changes, exercising, healthy diet, reducing stress, stopping smoking, maintaining healthy cholesterol levels, and reducing sodium intake (BWH Women’s Health at bwteleservices@partners.org. January 21, 2011).

Additional Informative web sites:

http://www.brighamandwomens.org/departments_and_services/womenshealth/hearthealth/your-care-explained/conditions-and-diagnoses/stress-cardiomyopathy/

(<http://www.mayoclinic.com/health/broken-heart-syndrome/DS01135>).

http://en.wikipedia.org/wiki/Takotsubo_cardiomyopathy,

<http://www.webmd.com/heart/features/broken-heart-syndrome-stress-cardiomyopathy>

<http://www.nhlbi.nih.gov/educational/hearttruth/downloads/html/hhh/stress-and-depression.htm>

http://rarediseases.info.nih.gov/GARD/Condition/9400/Stress_cardiomyopathy.aspx

Check <http://www.stress.org/hans.htm> for a history Hans Selye and the stress reaction.