Sudden Cardiac Death: Averting Tragedy Through Early Identification, Intervention

It’s every parent’s nightmare, and one that each year becomes a horrific reality for the mothers and fathers of 50 to 100 young people across the United States.

One moment, you are watching your child play football, perform in a cheerleading competition or participate in some other activity; the perfect picture of youthful health and vigor. The next moment, for no apparent reason, your son or daughter has collapsed. As people around you make frantic calls to 911, and coaches or others begin CPR, you are confronted with the prospect that you may be losing – or may already have lost – your child.

As a pediatric cardiologist, Robert Tozzi, M.D., works to protect the health of young people who have survived sudden cardiac arrest and to help others avoid that life-threatening event by identifying and managing the underlying, often silent, conditions that put them at risk.

“The most common cause of sudden cardiac death in young people is hypertrophic cardiomypathy, or HCM. This involves an abnormal thickening of the heart muscle that can make it difficult for the heart to pump blood efficiently, which can interfere with the heart’s electrical system, sometimes causing life-threatening abnormal heart rhythms,” explains Dr. Tozzi, who serves as director of the Gregory M. Hirsch Hypertrophic Cardiomyopathy Center at the Joseph M. Sanzari Children’s Hospital of Hackensack University Medical Center (HackensackUMC). “This condition affects roughly 1 in 500 people, but because it often causes no symptoms or only modest and non-specific symptoms, it can go unrecognized or be misdiagnosed. Many people with HCM do not experience significant problems. In other cases, however, a young person who has not noted previous symptoms goes into cardiac arrest,” he says.

Dr. Tozzi adds that recent years have seen great progress toward identifying and helping people at risk. “With the treatments we’re now able to offer, most people with HCM can have a life expectancy approaching that of the general U.S. population, but the key is early diagnosis and intervention.”

Dr. Tozzi and his colleagues at the center employ evaluation methods ranging from echocardiography to genetic testing. The center’s cardiologists and advance practice nurse work with geneticists, radiologists, pathologists, child life and social work professionals to attend to the young person’s overall well-being. “We pride ourselves on both individualized attention to the young person and a comprehensive approach to his or her family,” says Dr. Tozzi. He explains that because HCM and many other heart conditions have a strong genetic component, “Once we identify a young person who has HCM, we work to evaluate parents, siblings, grandparents and other relatives.”

Fred C. Hirsch founded the Gregory M. Hirsch Heart Foundation and worked with Dr. Tozzi and others to create the Gregory M. Hirsch Hypertrophic Cardiomyopathy Center in memory of his son, who died from undetected HCM one week before his 30th birthday. ❖