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THE ANNIVERSARY OF A LOVED ONE’S DEATH CAN TRIGGER SUDDEN DEATH
Anniversary Effect Linked to Unexpected Cardiac Deaths

CHICAGO, IL – If the date of a loved one’s passing is approaching, beware. The anniversary of the death of a close family member, especially a mother or father, is a significant trigger for Sudden Death (SD), especially in men, according to research presented today at the American College of Cardiology’s 57th Annual Scientific Session.

Understanding the triggers of SD—death that is unexpected and occurs rapidly, frequently within one hour of the onset of symptoms and usually due to lethal arrhythmias—may help researchers discover ways to anticipate and prevent premature loss of life.

“Sudden death is a major public health problem and is responsible for nearly half of all cardiac deaths,” said Juan Marques, M.D., Central University of Venezuela, and co-investigator of this study. “A better understanding of the manner in which events, such as the anniversary effect, can trigger sudden deaths may lead to innovative preventive strategies aimed at severing the link between this psychological stress and their pathological consequences.”

Researchers evaluated a consecutive series of 102 documented sudden death cases of individuals between 37 and 79 years old. Life circumstances that preceded death were investigated. In nearly 70 percent of cases (n=69), the underlying syndrome was coronary artery disease. In 13 percent of cases (n=13), SD occurs on the anniversary date of the traumatic event of death of a parent (seven on the anniversary of father’s death, five on the anniversary of mother’s death and one on the anniversary of the death of the mother and father, who died on the same date). Deaths were

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not related to the loss of any other close family member. Roughly one-third (n=4) died at a similar age as the family member who died previously.

“We’ve all known close family members who have died within hours, weeks, months or years of each other. The anniversary of death appears to be a devastating trigger of sudden death,” said Ivan Mendoza M.D., Central University of Venezuela, and investigator of the study. “Physicians should be aware that mental stress, such as the anniversary effect, may induce sudden death in susceptible individuals.”

According to Dr. Mendoza, patients may be especially vulnerable if they have a history of heart attack, family history of sudden death or coronary disease, and cardiovascular risk factors such as high cholesterol, high blood pressure, diabetes, smoking, obesity or a sedentary lifestyle. Psychological factors associated with coronary artery disease like anger, stress, emotional trauma, depression or anxiety are also linked to sudden death.

Nearly 80 percent of the patients (n=10) who died suddenly under the anniversary effect were male. The reason for this is not understood, but may reflect gender differences in response to stressful situations. Dr. Marques says that women could be less susceptible to higher levels of stress hormones including catecholamines due to protective mechanisms from certain molecules, including estrogens and protein Gi response pathways, which are thought to prevent damage to the heart.

This and previous studies have indicated that cardiovascular mortality is affected by the anticipation or experience of psychological factors and symbolic occasions. These findings may have implications for clinical practice and for research, according to the researchers.

“Avoidance of stress is not possible for individuals leading a full life,” said Dr. Mendoza. “However, integrative medicine, including psychological management, stress reduction interventions, and the development of tailored behavioral interventions based on individual patient risk factors, may be warranted.”

Drs. Mendoza and Marques will present their study on Sudden Death and the Anniversary Effect Saturday, March 29 at 11:00 a.m.

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The American College of Cardiology (www.acc.org) represents the majority of board certified cardiovascular physicians in the United States. Its mission is to advocate for quality cardiovascular care through education, research, promotion, development and application of standards and guidelines- and to influence health care policy. ACC.08 is the largest cardiovascular meeting, bringing together cardiologists and cardiovascular specialists to share the newest discoveries in treatment and prevention, while helping the ACC achieve its mission to address and improve issues in cardiovascular medicine.