

## THE **MYOCARDITIS FOUNDATION**

**Board of Directors** 

The Foundation board is comprised of medical professionals with experience in myocarditis and lay persons who have been touched by the disease.

Dr. Leslie T. Cooper, MD - Co-Founder, Chair, Enterprise Dept. of Cardiovascular Medicine for all of Mayo Clinic.

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Dr. Bettina Heidecker, MD, Head of Heart Failure and Cardiomyopathies Charite Hospital, Berlin, Germany.

Candace Moose - Co-Founder. Giant Cell Myocarditis Survivor and Transplant Recipient.

Joseph Rumore, Viral Myocarditis Survivor and former Managing Director of a national insurance company.

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Giustina Schiano. Mother of a Viral Myocarditis victim and Family Advocate for the Myocarditis Foundation.

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Dennis M. McNamara, MD - Professor of Medicine, Director Center for Heart Failure Research University of Pittsburgh Medical Center.

**DeLisa Fairweather. PhD. FAHA.** Director of Translational Research and Associate Professor of Medicine in the Dept. of Cardiovascular Medicine at Mayo Clinic in Jacksonville, Florida.

Wilson Tang, MD - Professor of Medicine at Cleveland Clinic Lerner College of Medicine at Case Western Reserve University. Practicing heart failure and transplant cardiologist at the Cleveland Clinic specializing in Cardiomyopathies and Myocarditis.

Enrico Ammirati, MD, PhD - Asst. Professor at the School of Medicine at the Vita-Salute San Raffaele University in Milan, Italy. Clinical Cardiologist who subspecializes in heart failure and myocarditis at the DeGasparis Cardio Center and Transplant Center at the Niguarda Hospital, Milan, Italy.

Justin Godown, MD - Asst. Professor at Monroe Carell, Jr., Children's Hospital at Vanderbilt, Medical Director of Pediatric Cardiomyopathy and Cardio Oncology and practicing Pediatric Cardiologist.

# Myocarditis Foundation You Can Help, Please Donate:

By Mail: The Myocarditis Foundation 3518 Echo Mountain Drive Kingwood, Texas 77345

Online: www.myocarditisfoundation.org

**Click DONATE Link** 

The Mvocarditis Foundation (MF) seeks to increase awareness and hasten progress in understanding myocarditis by awarding grants to help guarantee that new and innovative research avenues are thoroughly funded and explored. Please donate now.

The MF is a private, non-profit organization that exists to educate physicians and the public about this rare disease and support the patients and their families who have been affected by the disease. All of the money donated to MF will go directly to programs and services.

> For more information: info@myocarditisfoundation.org







#### **Internet Resources**

Children's Cardiomyopathy Foundation: www.childrenscardiomyopathy.org

Parent Heart Watch: www.parentheartwatch.org

Compassionate Friends: www.compassionatefriends.org

American Heart Association: www.americanheart.org

MyocarditisFoundation.org Website Resources





Please call the MF at 281-713-2962, or email Gen at gen@myocarditisfoundation.org. You can also go onto the Inspire.com website and go into the Myocarditis Community Page to speak with others who have been affected by myocarditis.

## **ADULT MYOCARDITIS:** RECOGNITION **AND DIAGNOSIS**



Knowledge **Nurtures** *Hope...* 

Your journey is just beginning

The Myocarditis Foundation

is here to help.

www.myocarditisfoundation.org







### **DEFINITION: What is Myocarditis?**

Myocarditis is a rare, sometimes fatal disease characterized by inflammation of the heart muscle. Although it is an important cause of dilated cardiomyopathy (enlarged weakened heart muscle that can't pump well) worldwide, often progressing to heart failure and transplantation, myocarditis remains poorly understood and is often undiagnosed. Most cases of myocarditis result from a prior viral infection, although many other causes have been identified. The true incidence of myocarditis is unknown due to diagnostic difficulties.

### **ETIOLOGY: What Causes Myocarditis**

Most cases of myocarditis result from viral infections, although many other infectious and non-infectious agents have been considered rare causes of deadly form of myocarditis called, Giant Cell Myocarditis, is associated with pre-existing autoimmune disease and hypersensitivity reactions to drugs in a small group of patients.

## **SIGNS AND SYMPTOMS:** When to Suspect Myocarditis

Signs and symptoms of myocarditis at initial presentation can be highly variable ranging from non-specific complaints to acute diffuse heart failure. Patients may recall a recent history of gastrointestinal illness or seek medical attention for mild, non-specific viral flu-like symptoms. Most commonly, the initial presentation is of sudden onset heart failure with severe chest pain, difficulty breathing, fatigue, palpitations, lethargy, decreased exercise tolerance and or syncope (dizziness.)

## **DIAGNOSIS: How is Myocarditis Detected?**

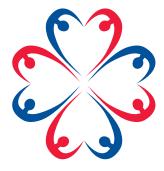
Accurate diagnosis of myocarditis is challenging due to the variability of presentation and the lack of highly specific diagnostic tools available. Electrocardiograms. Chest X-ravs. Echocardiograms, and more recently Cardiac Magnetic Imaging (MRI) have been used for assessing suspected myocarditis cases. Endomyocardial Biopsy (a biopsy of the heart muscle) remains the gold standard for a definite diagnosis of acute myocarditis in patients in whom the benefits outweigh the risks of

## THERAPY: What are the **Treatment Options for Myocarditis?**

The primary treatment is supportive on guidelines care based recommendations published by major cardiovascular organizations in North America and Europe. Administration of intravenous cardiac medications or the insertion of a temporary pacemaker may be necessary. In severe cases, extracorporeal membrane oxygenation (ECMO) or a ventricular assist device (VAD) may be necessary in the acute phase to allow the heart to recover or to serve as a bridge to transplantation. Immunoglobulin or corticosteroids have been used in some acute cases to inhibit the immune response. Following the acute phase, surviving patients may recover completely or have long-term deficits. In severe cases, cardiac transplantation may offer the best chance for long-term survival. Patients with acute myocarditis should refrain from competitive sports until cleared to do so by their physician.

#### **CONCLUSION:**

Although myocarditis is a relatively rare disease that in many cases resolves without further problems, the importance of recognition, early diagnosis and prompt treatment in high-risk individuals cannot be overstressed. A substantial number of patients suffer significant cardiac damage leading to life long morbidity or death when an accurate early diagnosis eludes the doctor. The doctor should maintain a high degree of suspicion for the presence of an inflammatory process when examining patients whose presenting signs and symptoms warrant further cardiac evaluation.



For further information please visit the Myocarditis Foundation website at: www.myocarditisfoundation.org