Dilated Cardiomyopathy

Dilated cardiomyopathy is a disease of the heart muscle. Dilation of all four cardiac chambers (atria and ventricles) occurs due to weakened systolic contraction. This is the most common type of cardiomyopathy and the most common cause of congestive heart failure in people without other known cardiac abnormalities. Despite this, the incidence of dilated cardiomyopathy is low, occurring in 6-8 out of every 100,000 people. 60% of people with dilated cardiomyopathy have no known cause (idiopathic). Viral infection may also lead to dilated cardiomyopathy.

Physical Exam/Symptoms:
- Fatigue, weakness
- Dyspnea (difficulty breathing) with exertion.
- Congestive heart failure: tachycardia (fast heart rate), weak peripheral pulses, distended neck veins, hepatomegaly (enlarged liver), pulmonary crackles.
- Murmur: Prominent S3 with or without gallop rhythm. Soft regurgitant systolic murmur may be heard at the left lower sternal border due to tricuspid or mitral regurgitation.

Diagnostics:
- **Chest X-ray**: Generalized cardiomegaly (enlarged heart). Pulmonary edema may be present.
- **EKG**: Sinus tachycardia (fast heart rate), left ventricular hypertrophy (LVH) and ST-T changes are common. Left and right ventricular enlargement and/or atrial and ventricular arrhythmias may be present.
- **Echocardiogram**: Diagnostic. Shows poor contractility and chamber enlargement. Thrombus (clot) may be present due to poor function and dilation.
- **Genetic testing**

Medical Management/Treatment:
- Diuretics (Lasix) and afterload reduction (enalapril, captopril) for treatment of heart failure symptoms.
- Bed rest or activity restrictions due to poor heart function.
- Anticoagulation medications, such as aspirin, are utilized for prevention or treatment of clot.
- Antiarrhythmia medication for treatment of arrhythmias, if present.
- Beta-blocker medications (carvedilol) are used to improve left ventricular function.
- Inotropic IV support and mechanical ventilation may be needed for critically ill patients.
- Cardiac transplantation may be needed if medical therapies are inadequate.
- Life-long cardiology follow-up is needed.

Long-term Outcomes:
- Atrial and ventricular arrhythmias occur frequently, necessitating careful medical management.
- Embolization (dislodgement) of clot to the body or lungs may occur.
- While 1/3 of patients remain stable on a careful medical regimen, progressive deterioration is common and 2/3 of people die within 4 years of onset of symptoms.