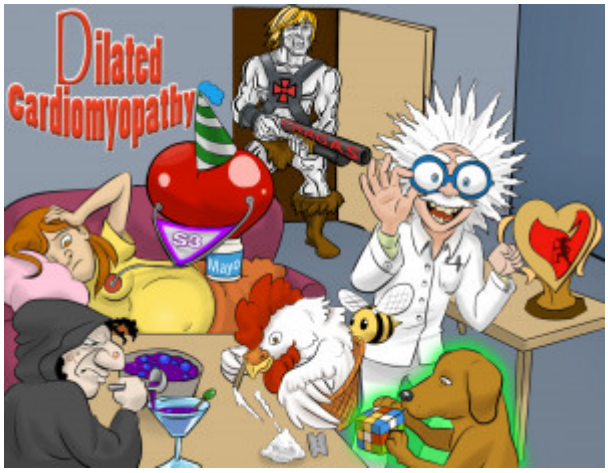
Dilated Cardiomyopathy

Dilated cardiomyopathy is a disease of the heart in which the heart becomes weakened and enlarged, and is unable to pump blood efficiently throughout the body. Therefore, it is commonly described as a contractile or systolic dysfunction. This is the most common form of cardiomyopathy not due to ischemic causes. Although many cases are idiopathic, it is thought that dilated cardiomyopathy is related to damage of the myocardium produced by toxic, metabolic, or infectious agents. Common causes of dilated cardiomyopathy include chronic alcohol abuse, wet beriberi related to thiamine deficiency, coxsackie B infection, cocaine use, Chagas disease, doxorubicin toxicity, hemochromatosis and peripartum cardiomyopathy. On physical exam, an S3 heart sound can be appreciated, due to turbulent blood flow between the walls of the ventricles, as blood flows from the atria in the volume overloaded heart. Dilated cardiomyopathy is also characterized by eccentric hypertrophy in which cardiac sarcomeres are added in series as opposed to parallel.



PLAY PICMONIC

Chronic Alcohol Abuse
Crone with Alcoholic-martini
Long term abuse of alcohol can lead to dilated cardiomyopathy due to the direct toxic effects of alcohol on heart muscle.

Doxorubicin Toxicity
Dachshund-rubix-cube with Toxic-green-glow
Doxorubicin is a chemotherapeutic agent that works by intercalating DNA. The most serious adverse effect of doxorubicin use is heart damage, including dilated cardiomyopathy.

Cocaine Use
Line of Cocaine
Cocaine is known to block the reuptake of norepinephrine and dopamine at nerve endings, which can increase sympathetic responses in the body, including increase in heart rate and blood pressure. Acute cocaine use also has vasoconstrictive properties in the coronary arteries. Although the exact mechanism of cocaine-related cardiomyopathy is not yet understood, it is thought that ischemic damage and chronic adrenergic stimulation may play a role.

Wet Beriberi
Wet Berries
Wet beriberi is caused by thiamine (B1) deficiency and is characterized by cardiac involvement and peripheral edema. Wet beriberi can cause dilated cardiomyopathy due to progressive cardiac damage.

Hemochromatosis
He-man-chrome
Hemochromatosis is a disease characterized by excessive accumulation of iron in the body, most of which becomes deposited in organs such as the liver, pancreas, joints and heart. Hemosiderin deposition in the heart can cause either dilated or restrictive cardiomyopathy.

Coxsackie B
Cock-in-sack with (B) Bee
Coxsackie B virus is a picornavirus that can cause myocarditis, leading to dilated cardiomyopathy.

Chagas Disease
Shotgun
Chagas disease is caused by an infection by the protozoan parasite Trypanosoma cruzi. This protozoa can spread systemically to the muscles, including myocardium. The heart is the most commonly affected organ in patients with chronic Chagas disease and can cause marked bilateral ventricular enlargement, leading to dilated cardiomyopathy.

Peripartum
Pregnant-woman
Dilated cardiomyopathy occurs more frequently in pregnancy, usually late in gestation to several months postpartum, and is called peripartum cardiomyopathy.

Sign up for FREE at picmonic.com

S3

Triangular S3-stethoscope

The S3 heart sound is an extra heart sound that follows the normal lub-dub (S1 and S2) heart sound in early diastole. S3 is thought to be caused by turbulent blood flow between the walls of the ventricles as blood flows from the atria in volume overloaded hearts.

Eccentric Hypertrophy

Eccentric-scientist with Hiker-trophy

Dilated cardiomyopathy is characterized by eccentric hypertrophy caused by volume overload in the heart. In eccentric hypertrophy, cardiac sarcomeres are added in series, as opposed to parallel, which occurs in concentric hypertrophy.

Sign up for FREE at picmonic.com