

Medical terminology

LEC.8

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THE CARDIOVASCULAR SYSTEM

The cardiovascular system (CVS) consists of the heart, the blood and the blood vessels [these vessels include the arteries, veins and capillaries/include the arterioles=small branches of the artery and the veinules= small branches of the vein)].

The heart:

The heart is a four-chambered hollow organ with 3 layers which are:

A- The Endocardium :(endo=within; cardium= the heart) the inner most layer.

B- The Myocardium: (myo=muscle; cardium the heart) the middle layer which consists of the heart muscle, and it is the thickest layer in the heart.

C- The Epicardium: (epi= upon; cardium= the heart) the outer layer of the heart.

The heart is surrounded by a sac called the Pericardium (peri=around; cardium= the heart).

The four chambers of the heart are: The right atrium. The right ventricle. The left atrium. The left ventricle.

These chambers are separated from each other by septa (septum is the singular, septa is the plural).

Atria: is the plural form of atrium, this term refers to the upper 2 of the four heart chambers composed of the right atrium and the left atrium.

Disorders and treatments

- !• Coronary artery disease (CAD): very serious condition affecting the coronary artery which supplies the myocardium.
- !• Atherosclerosis (athero=fatty; sclera=hard; osis= abnormal condition): progressive accumulation of fat plaques which leads to narrowing and hardening of the artery.
- !• Ischemia: deficiency of blood flow and oxygen to the myocardium.
- !• Hyperlipidemia (hyper=excessive; lipid=fat; emia=blood): fat deposits on the internal wall of the artery.
- !• Thrombosis (thrombo=blood clot): it is the formation of a blood clot (also called thrombus) in a blood vessel.
- !• Myocardial infarction (MI): also called heart attack, it is a condition that results from lack of oxygen supply to the myocardium so the heart muscle dies. The symptoms include: sudden severe chest pain that may involve the left arm, neck and shoulder.

Arrhythmias:

- !• An arrhythmia (a= without or loss of; rhythm= regular occurrence): is" any irregularity of the heart rhythm such as slow, fast or extra heart beats.
- !• Bradycardia (brady=slow): is a slower than average heart rate.
- !• Tachycardia (tachy=fast): is faster than average heart rate.
- !• Fibrillation: is rapid, random and ineffective contractions of the heart.

Hypertension (HTN):

It means high blood pressure, it occurs when the systolic blood pressure becomes more than 140 mmHg or the diastolic pressure is greater than 90 mmHg.

- !• Congestive heart failure (CHF): it is a syndrome where the heart is unable to pump enough blood to meet the body needs of oxygen and nutrients, in this case fluid accumulates in the ankles and legs.
- !• Angina pectoris: pain in the chest due to ischemia.

Practice and practitioners:

Cardiology: medical specialty dealing with the heart. Cardiologist: medical doctor specialized in treating the heart.

Hematology: medical specialty dealing with the blood.

Hematologist: medical doctor specialized in treating the blood diseases.

Pharmacology

- !• Antiarrhythmics (anti=against; a=without; rhythm=regular recurrence): drugs used to restore heart rhythm to normal.
- !• Diuretics: drugs used to remove excess water or fluids from the body. They help decrease blood pressure and work load on the heart.
- !• Vasodilators (vaso=vessel; dilate= open up): drugs used to increase the lumen of blood vessels (dilate the vessels). They are used for treating hypertension.
- !• Vasoconstrictors (vaso=vessel; constrict=narrow the opening of): drugs that decrease the diameter of blood vessels. Used for treating hypotension.

Diagnosis:

Electrocardiogram (ECG) or (EKG): a device that is used to record the electrical activity of the heart.

Echocardiography (Echo): ultrasonic procedure to evaluate the structure and motion of the heart.

Sphygmomanometer: instrument that is used to measure the blood pressure.

The stethoscope: is a medical device used for listening to the internal sounds of the human body.

Common terms in cardiac diseases and their meaning:

Angiostenosis (angio=blood vessel; stenosis=narrowing): narrowing of a blood vessel.

Arteriostenosis: narrowing of an artery. Arteritis: inflammation of the artery.

Atriomegaly: enlargement of an atrium.

Cardiodynia: heart pain.

Cardiomegaly: enlargement of the heart.

Cardiomyopathy: disease of the heart muscle (the myocardium).

Cardiopathy: any heart disease.

Carditis: inflammation of the heart.

Dyscrasia: general term used for a blood disorder.

Endocarditis: inflammation of the endocardium.

Hemorrhage: discharge of blood (bleeding).

Hemolysis: destruction of red blood cells.

Myocarditis: inflammation of the heart muscle.

Pericarditis: inflammation of the pericardium.

Valvulitis: inflammation of a valve.

Vasculitis or angitis: inflammation of a vessel.

Abbreviation

Meaning

BP

Blood pressure

CCU

Cardiac care unit

ICU

Intensive care unit

OR

Operating room

ER

Emergency room

Hb

haemoglobin

HR

Heart rate

MI

Myocardial infarction

RBC

Red blood cells

WBC

White blood cell