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CONTENT

COURSE TITLE: GROSS ANATOMY OF THORAX, ABDOMEN, PELVIC & PERINEUM

COURSE CODE: ANA 202

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QUESTION

1. You will be provided with a video, watch it and use it to describe the heart and its functions

2. Write on five (5) different congenital anomalies of the heart

**ANSWER**

THE HEART

The heart muscle about the size of your fist. It lies behind into the left of the breast bone. The purpose of the heart is to pump blood for blood vessels, arteries, and veins to all parts of the body.

The inside part is divided into four chambers: the top two chambers and the bottom two chambers.

The top two chambers are called arterial and are collection chambers for blood. The bottom two chambers are called the ventricles and receive the blood from the ateria and pumps it to the lungs and the body.

The chambers are separated by valves which controls the direction of blood flow. There are four valves:

* Tricuspid valve
* Pulmonary valve
* Mitral valve; and
* Aortic valve

Circulation begins at the right side of the heart where blood flow of the body comes from the right arterum. This blood passes to the right ventricle where it is pumped to the blood to receive oxygen. Once it receives oxygen, it flows to the left arterum and then to the left ventricle where it is pumped to the aorta and the rest of the body. On the right side of the heart, the tricuspid valve separate the right arterum and right ventricle allowing blood to enter the ventricles but not flow backwards to the arterum.

Blood flows through the pulmonic valve and goes to the lungs. On the left side of the heart, the Mitra valve separate the arterum and the left ventricle.

**FUNCTIONS OF THE HEART**

* Blood flows from the left ventricle to the aorta called the aortic valve and to the rest of the body.
* Arteries carry blood with oxygen and other nutrients through out the body.
* Veins take blood back to the heart which pumps it into the lungs to be oxygenated.
* The heart artery, coronary artery provides oxygen nutrients to the heart muscle.
* The right coronary artery splits into two vessels: one part supplies blood to the front of the heart and the other delivers blood back to the heart.
* An electric system transmits signal round the heart to control it's pumping. The electric signals starts in the Sino Aterial Node or SA Node which is located in the upper portion of the arterum and is known as the natural peace maker of the heart.

The electric signal passes down the lower chambers of the heart by the arterial ventricular or AV Node which controls the signal so arteria contracts before the ventricles. In the ventricle, pathways carries signals round the muscles so they can contract at the same time to pump blood to the lungs and throughout the body.

2. A congenital heart defect (CHD), also known as a congenital heart anomaly and congenital heart disease, is a defect in the structure of the heart or great vessels that is present at birth. Signs and symptoms depend on the specific type of defect. Symptoms can vary from none to life-threatening. When present, symptoms may include rapid breathing, bluish skin (cyanosis), poor weight gain, and feeling tired. CHD does not cause chest pain. Most congenital heart defects are not associated with other diseases. A complication of CHD is heart failure.

**DIFFERENT ANOMALIES OF THE HEART**

**HOLE IN THE HEART (SEPTAL DEFECT)**

This means when a person is born with a hole in the wall, or septum, that separates the left and right sides of their heart. The hole lets blood from the two sides mix.

**ATRIAL SEPTAL DEFECT (ASD)**

An ASD is a hole in the wall between the upper chambers, or the right and left atria, of the heart. A hole here lets blood from the left atrium mix with blood in the right atrium.

Some ASDs close on their own. Doctors may need to repair a medium or large ASD with open-heart surgery or another procedure.

He might seal the hole with a minimally invasive catheter procedure. He inserts a small tube, or catheter, in the blood vessel all the way to the heart. Then he can cover the hole with a variety of devices.

**VENTRICULAR SEPTAL DEFECT (VSD)**

A VSD is a hole in the part of the septum that separates the heart’s lower chambers, or ventricles. If a patient has a VSD, blood gets pumped back to their lungs instead of to your body.

A small VSD may also close on its own. But if it is larger, the patient may need surgery to repair it.

**COMPLETE ATRIOVENTRICULAR CANAL DEFECT (CAVC**)

This is the most serious septal defect. It’s when one has a hole in their heart that affects all four chambers. A CAVC prevents oxygen-rich blood from going to the right places in the body. Doctors can repair it with patches. But some people need more than one surgery to treat it.

**TETRALOGY OF FALLOT**

Sometimes, if a person has holes in their heart, or septal defects, they might also have other congenital heart problems. One is called the tetralogy of Fallot, which is a combination of four defects, including:

1. A large ventricular septal defect (VSD)
2. Thickened wall around the right ventricle, or lower chamber
3. The aorta is located above the hole in the ventricular wall
4. Stiff pulmonary valve that prevents blood from flowing easily from the heart to the lungs

A baby born with tetralogy of Fallot may need to have open heart surgery soon after birth to fix the problems. If the pulmonary valve issue isn’t too serious, the doctor might talk to you about waiting until your child is a little older.