ASSIGNMENT FOR VIVA..Radiology sec b 2nd semester

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Q1. (i) Write a note on cardiovascular system?

Ans:- ***Cardiovascular System?***

The cardiovascular system refers to the heart, blood vessels and the blood. Blood contains oxygen and other nutrients which your body needs to survive. The body takes these essential nutrients from the blood. At the same time, the body dumps waste products like carbon dioxide, back into the blood, so they can be removed. The main function of the cardiovascular system is therefore to maintain blood flow to all parts of the body, to allow it to survive. Veins deliver used blood from the body back to the heart. Blood in the veins is low in oxygen (as it has been taken out by the body) and high in carbon dioxide (as the body has unloaded it back into the blood). All the veins drain into the superior and inferior vena cava which then drain into the right atrium. The right atrium pumps blood into the right ventricle. Then the right ventricle pumps blood to the pulmonary trunk, through the pulmonary arteries and into the lungs. In the lungs the blood picks up oxygen that we breathe in and gets rid of carbon dioxide, which we breathe out. The blood is becomes rich in oxygen which the body can use. From the lungs, blood drains into the left atrium and is then pumped into the left ventricle. The left ventricle then pumps this oxygen-rich blood out into the aorta which then distributes it to the rest of the body through other arteries. The main arteries which branch off the aorta and take blood to specific parts of the body are:

Carotid arteries, which take blood to the neck and head

Coronary arteries, which provide blood supply to the heart itself

Hepatic artery, which takes blood to the liver with branches going to the stomach

Mesenteric artery, which takes blood to the intestines

Renal arteries, which takes blood to the kidneys

Femoral arteries, which take blood to the legs

The body is then able to use the oxygen in the blood to carry out its normal functions. This blood will again return back to the heart through the veins and the cycle continues.

(ii) what are the symptoms of high and low blood pressure?

Ans:- symptoms of low blood pressure:-

Most doctors will only consider chronically low blood pressure as dangerous if it causes noticeable signs and symptoms, such as:

- Dizziness or lightheadedness
- Nausea
- Fainting (syncope)
- Dehydration and unusual thirst
- Dehydration can sometimes cause blood pressure to drop. However, dehydration does not always cause low blood pressure. Fever, vomiting, severe diarrhea, overuse of diuretics and strenuous exercise can all lead to dehydration, a potentially serious condition in which your body loses more water than you take in. Even mild dehydration (a loss of as little as 1 percent to 2 percent of body weight) can cause weakness, dizziness and fatigue.
- Lack of concentration
- Blurred vision
- Cold, clammy, pale skin
- Rapid, shallow breathing
- Fatigue
- Depression

Symptoms of high blood pressure :-

If your blood pressure is extremely high, there may be certainsymptoms to look out for, including:

- Severe headaches
- Nosebleed
- Fatigue or confusion
- Vision problems
- Chest pain
- Difficulty breathing
- Irregular heartbeat
- Blood in the urine
- Pounding in your chest, neck, or ears

❖ People sometimes feel that other symptoms may be related to high blood pressure, but they may not be:

- Dizziness
- Nervousness
- Sweating
- Trouble sleeping
- Facial flushing
- Blood spots in eyes

(iii) what is the treatment of high and low blood pressure?

Ans:- ***Treatment of high blood pressure:-***

❖ Changing your lifestyle can go a long way toward controlling high blood pressure. Your doctor may recommend you make lifestyle changes including:

❖ Eating a heart-healthy diet with less salt

- Getting regular physical activity
- Maintaining a healthy weight or losing weight if you're overweight or obese
- Limiting the amount of alcohol you drink
- But sometimes lifestyle changes aren't enough. In addition to diet and exercise, your doctor may recommend medication to lower your blood pressure.
- Your blood pressure treatment goal depends on how healthy you are.
- Your blood pressure treatment goal should be less than 130/80 mm Hg if:
- You're a healthy adult age 65 or older
- You're a healthy adult younger than age 65 with a 10 percent or higher risk of developing cardiovascular disease in the next 10 years
- You have chronic kidney disease, diabetes or coronary artery disease
- Although 120/80 mm Hg or lower is the ideal blood pressure goal, doctors are unsure if you need treatment (medications) to reach that level.
- If you're age 65 or older, and use of medications produces lower systolic blood pressure (such as less than 130 mm Hg), your medications won't need to be changed unless they cause negative effects to your health or quality of life.
- The category of medication your doctor prescribes depends on your blood pressure measurements and your other medical problems. It's helpful if you work together with a team of medical professionals experienced in providing treatment for high blood pressure to develop an individualized treatment plan.