

Coronary heart disease and crohn's disease

[Health & Medicine](#), [Disease](#)



p1 & 2 Unit 14- Assignment 1 ' Physiological disorders, their nature, signs and symptoms' Unit 14- assignment 2 ' Diagnosis- how it is carried out'

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Surgery⁹ Bibliography⁹ Coronary heart disease (CHD) Blockage of the coronary arteries by plaque may cause a heart attack. Coronary heart disease (CHD) is a term used to describe what happens when the blood supply to the heart is blocked or interrupted by a build up of fatty substances in the coronary arteries. CHD is a preventable disease that can be treated. Over time the walls of the arteries can become clogged up with fatty deposits. This is a process that is known as atherosclerosis. The fatty deposit is known as atheroma. Signs and symptoms

There are various symptoms of CHD; palpitation of the heart, this is an unusual awareness of the heart beating, this is a common symptom. Palpitation of the heart is normally described as skip in a heartbeat, which is often a pause followed by a strong beat, or a period of rapid and irregular beats. Unusual breathlessness, this is where the person suddenly loses their breath for some unknown reason. Angina is another symptom of CHD. Angina is a pain that comes from the heart. This can be caused by a build up of fatty deposit or a collapsed arterial wall, resulting in the blood having difficulties to flow freely and quickly to the heart.

The signs for angina are; chest pains, pins and needles down the left arm, up to the neck, jaw and into the back. Pale skin, blue lips and nausea are also some of the signs that can be recognised for angina. Heart attack is one of the most common of the number of heart conditions. It occurs when there is a blockage in one of the coronary arteries that supply the heart muscles with oxygenated blood. If part of the does not receive oxygenated blood, the heart muscles will die or not function correctly, which reduces the amount of blood that is pumping around the body.

The signs for a heart attack are very similar to angina but occur without warning. Heart failure is another symptom of CHD, heart failure means that your heart is about to stop working. It happens when your heart is having trouble pumping enough blood around the body. It usually strikes if the heart muscles have become too weak to work correctly. CHD is a big killer, with 2.6 million people living with the condition in the UK. There are 1 in 5 men and 1 in 7 women suffering from coronary heart disease. The chances of getting this disease increase as you get older.

The reason for this is because the older you get the more fatty substances can build up in your coronary arteries. The disorder physically affects the body's systems' when the blood supply to the heart is blocked or interrupted by a build-up of fatty substances in the coronary arteries. Over time the walls of the arteries can become clogged up with fatty deposits causing the heart to work harder and when exercising the symptoms will be lack of breathe increased heart rate and increased pain in left arm. The first signs are face becomes red the body starts to sweat before becoming cold and pale as the blood flow weakens.

Factors that can affect the development of the disorder Coronary heart disease begins through the damage to the inner wall of a coronary artery. The damage can be caused by many things, some include; smoking, a diet high in cholesterol and diabetes. Gender can also affect the development of the disorder. Men are more commonly at a greater risk of developing CHD than women. Age is another big factor, as your age increases so does your risk of damaged and narrowed arteries due to the amount of Cholesterol deposited on the walls of the arteries.

As you get older the more chance you have of getting the disease, this is because the older you are the weaker your coronary arteries get. High blood pressure can significantly speed up the process of hardening and thickening of the arteries, narrowing the path through which blood can flow around the body. If there is a family history of heart disease, it is seen to be a higher risk that you will develop the disease. If your close relatives have developed heart disease, you are seen to be at a high risk of you developing CHD at a later stage in life. How is CHD diagnosed?

You can diagnose Coronary heart disease by going through many procedures. A person may have to have an Electrocardiogram (ECG), echocardiogram (Echo), magnetic resonance imaging (MRI) scan, coronary angiography, radionuclide tests, x-rays, or blood tests. Heart An ECG records the rhythm and electrical activity in the heart. Lots of electrodes are placed on the arms, legs, and chest. The electrodes that are connected to the patient are also connected to a machine to record each heart beat. Even if an abnormal reading is taken, it doesn't mean everything is ok.

And a normal reading doesn't mean everything is ok. ECG's are not reliable on their own, many more tests/ procedures have to take place to correctly diagnose the patient with CHD. Echocardiograms Echocardiograms are similar to ultrasound scans which are used during pregnancy. It uses sound waves to produce an image of the heart. An echocardiogram can find and work out the structure, thickness and the movement of the valves in the heart. During an Echo the patient is asked to take their top off and lay on a bed. A small piece of equipment, called a transducer, is moved over the chest.

A gel that works as a lubricant is put onto your skin to assist the transducer to move along the skin effortlessly, this will make sure that contact is kept at all times with the skin. A coronary angiography provides information about the hearts blood pressure and functioning. This procedure can identify whether the coronary arteries are blocked or narrowing. A tube/camera is passed through an artery in the groin or arm; it is guided using x-rays up to the heart. A coronary angiogram is a safe procedure, but there are some small side affect.

You may feel a slightly strange sensation when the dye is put down the catheter, a small amount of bleeding when the catheter is removed, a bruise in your groin or arm. X-rays are used to guide tubes or cameras through the body. It is used to look at the heart, lungs, and chest walls. They can also be used to rule out any other conditions that might be causing the weaknesses. Blood tests such as cholesterol, cardiac enzyme and thyroid function testing are three blood tests that are used to diagnose a person with CHD.

They are also used to rule out other conditions that may be similar to CHD symptoms. Radionuclide testing indicates how strongly the heart pumps and it shows the flow of blood in the heart. There is a small amount of radioactive substances are injected into the blood and a camera is placed over the chest which picks up radioactive signals. MRI scans produce detailed pictures of the heart; the picture is produced by the patient lying down on a bed like table and taken through a tunnel which scans the patient's heart.

Treatments

Coronary heart disease is treated in a number of ways. The intensity of the treatment depends on the seriousness of the disease. For many people, CHD is managed with lifestyle changes and medication. Other with severe CHD many need to undergo surgery. When a person develops CHD, it requires lifelong management. Lifestyle changes that could be made Reducing the chances of developing CHD is within the individual's control. Their doctor can help reduce the chances by the use of drugs. The biggest reduction comes from the individual choice of changing their lifestyle.

The lifestyle changes are the most important way of reducing the chances of developing CHD, or preventing the disease from getting worse. People should eat healthy and lower fat intake if they are going to reduce the risk. Participating in regular exercise can reduce the risk of coronary heart disease. It is recommended that you take part in at least 30 minutes of exercise 3-5 times week. Exercise lowers you blood pressure, also lowers bad cholesterol, and increases good cholesterol. Exercising strengthens the heart and increase the circulation of blood around the body.

Smoking increases the risk of you developing CHD. As you inhale the tobacco smoke it causes many instant reactions in the heart and blood vessels. Your heart rate increases to as much as 30% in the first 10 minutes of smoking. Smoking increases blood pressure, blood vessels constrict (narrow), which makes the heart have to work harder to circulate oxygen around the body. Stopping smoking helps reduce the risk of developing CHD because after three years of not smoking, the risk of heart disease is the same as a non-smoker. What medication can be used?

Also taking a low dosage of aspirin a day can reduce the risk of CHD will prevent blood clots but they don't really help the stomach, as they are bad for the stomach. Angiotensin- converting enzymes (ACE) inhibitors are what you would take to treat high blood pressure. They stop the progression of CHD and they block the hormone that causes the blood vessels to narrow and stop the heart working correctly. Angiotensin II receptor antagonists are used to lower the blood pressure. Calcium channel blockers, these are also used to lower blood pressure by relaxing the muscles that are in the walls of the arteries.

Thiazide diuretics are used to reduce the amount of water in the blood. Beta blockers are used to prevent angina and treat high blood pressure. They slow down the heart, which will decrease the requirement for oxygen. This will improve the blood flow to the heart. Statins are the medication that lowers cholesterol levels. They slow down the process of CHD and they also reduce the likelihood of having a heart attack. Nitrates are also used to widen the blood vessels, they relax them, and this will let more blood pass through them. What types of surgery are used to treat CHD?

Surgery may be recommended for patients who continue to have frequent angina attacks, even with the use of medications, or people who are found to have serious blockages in their coronary arteries. The patient has to be referred to the hospital by a doctor. The patient should not refer themselves to the hospital as this could be dangerous as it could cause stress and anxiety. Coronary angioplasty surgery may be a procedure that could be planned for the patient, but this could also be an emergency procedure. A coronary angiogram will determine if the treatment is suitable for the patient.

A coronary angioplasty is a procedure to open up any narrowed arteries so that blood can flow more easily to your heart. During the procedure, the doctor will inflate a small balloon in the artery that is affected. The doctor may insert a stent to keep your artery. A coronary angioplasty is sometimes called balloon angioplasty. You may have a coronary angioplasty to treat angina or after you have had a heart attack. Coronary angioplasty Some people may have an angioplasty straight after an angiogram. An angiogram is a test that allows your doctor to take an X-ray of your coronary arteries and find any narrowed areas.

In a coronary artery bypass operation, a blood vessel, usually taken from the leg or chest, is grafted onto the blocked artery, bypassing the blocked area. If more than one artery is blocked, a bypass can be done on each. This procedure will then mean the blood will be able to go around the obstruction to supply the heart with enough blood to relieve the chest pain that may be caused with the blocked artery. Bypass surgery relieves symptoms of CHD but does not cure it. Usually you will need to make a number of changes in your lifestyle after the operation.

If your normal lifestyle includes smoking, a high-fat diet, or no exercise, changes are advised. Making the changes will reduce the chances of you getting CHD as bad as you did before you had the surgery. A heart transplant is only performed when the heart is severely damaged and medication does not work or after heart failure. Heart transplant is surgery to remove the person's diseased heart and replaced with a healthy heart from a donor. Your doctor may recommend a heart transplant if your heart is so damaged or weak that it can't pump enough blood to meet your body's needs.

This condition is called heart failure. A heart transplant is a life saving procedure. Recovering from CHD If you have heart surgery, a member of the cardiac rehabilitation team may visit you in hospital to give you information about your condition and how you can recover from the surgery that you have undertaken. This care will usually continue after you have left hospital. For the couple of weeks after your surgery, a member of the cardiac rehabilitation team may visit you at home to check on your progress and see if you are recovering.

What happens in cardiac rehabilitation programmes can vary throughout different areas, most cover exercise, education and relaxation and emotional support. Once the rehabilitation programme has been completed, it is important the patient continues with regular exercise and that they lead a healthy lifestyle. This will help to protect your heart and reduce the risk of further problems with the heart. Crohn's disease Crohn's disease is a long term condition that cannot be cured. Crohn's disease is a chronic

inflammatory disease which causes stomach pains, diarrhoea, and can also lead to weight loss.

Crohn's disease affects the lower part of the small intestine, also known as the ileum. It also affects the large intestine, the colon. It can affect any part of the digestive system. The affected areas become red and swollen, sometimes causing ulcers on the affected areas. As the ulcers heal, the scar tissue makes the intestine narrow, due to this it leads to an obstruction in the digestive system. There is no cure for this disease, but the symptoms can be prevented. Signs ; symptoms There are many symptoms for Crohn's disease, but they can vary depending on where the disease is located in the digestive system.

Common symptoms of Crohn's disease are; abdominal pain, the pain is normally found in the lower right side, diarrhoea, loss of appetite this leads to weight loss, rectal bleeding, fever, nausea and vomiting, Skin lesions and joint pain. Causes There is no exact cause of Crohn's disease and it is unknown what it is caused by, it is linked to a problem with the body's immune system response. Normally the immune system helps protect the body, but with Crohn's disease the immune system can't tell the difference between the normal body tissue and foreign bodies.

The result of this is an overactive immune response that leads to chronic inflammation. People with Crohn's disease never get rid of the inflammation of the gastrointestinal tract. Crohn's disease may occur in any area of the digestive tract. The inflammation causes the inner wall to become thick. There are different types of Crohn's disease, depending on the part of the

digestive system that is affected. Crohn's disease may infect the small intestine, the large intestine, the rectum, or the mouth.

A person's genes and environmental factors are seen to play a role in the development of Crohn's disease. The body may react excessively to normal bacteria in the intestines. The disease may occur at any age, but it usually occurs in people between ages 15 - 35. There is a greater chance of you developing this disease if there is a family history of Crohn's disease, you come from a smoking background or you smoke. Previous infections may trigger Crohn's disease, as a past infection can trigger an abnormal response from the immune system. Complication that can occur

Crohn's disease can cause many different kinds of complications, such as, blockages or obstructions in the intestines are the most common complication that can occur. Malnutrition can also be a complication; this is when a person's diet does not contain enough nutrients to meet the demands of their body. There is also an increased risk that Crohn's disease sufferers will develop colorectal cancer (bowel cancer). Diagnosis The patient has to go through many tests to be able to be diagnosed with Crohn's disease. If one test was carried out, it wouldn't be reliable because other diseases or problems may arise when taking the test.

Blood test can be carried out, this can show if there is any inflammation, infection and anaemia. Anaemia is a when a person has an iron deficiency, meaning if they have too much or too little iron in their blood. Stool sample, which can be examined for blood, mucus and parasites, such as round worm. A colonoscopy is when Colonoscopy the doctor inserts a long, flexible tube called a colonoscope, into the anus and slowly guides it through the rectum

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and into the colon. The colonoscope inflates the large intestine with carbon dioxide gas; this gives the doctor a better view.

A small camera that is on the end of the colonoscope sends a video image from inside the large intestine to a computer screen; this allows the doctor to carefully examine the intestines. Crohn's disease is a condition that cannot be cured, but appropriate treatment can help control the inflammation and manage the symptoms. Diet and nutrition management can help patients control their symptoms and improve their nutritional levels. The patient can take many types of medication to resolve symptoms and prevent disease developing any thither.

Some medications don't work for everyone with Crohn's disease. Most patients with severe Crohn's disease eventually need surgery when medications and diet and lifestyle changes no longer help. Medication The purpose of the medication that is prescribed by the doctor is to reduce the inflammation that activates the signs and symptoms that occur. They are also to improve the patient's long term life, by reducing and limiting the complications that could occur. The drugs that the patient could be given are; Anti-inflammatory drugs: these drugs are often what are given to the patient first.

Sulfasalazine (Azulfidine): this drug isn't always effective for treating Crohn's disease. It may help to reduce the inflammation of Crohn's disease that affects the colon. This medication has many side effects, including tiredness, vomiting, heartburn and headache. Mesalamine (Asacol, Rowasa): this medication is normally taken when the disease is affecting the large intestine, as it is ineffective for the disease that is effecting the small

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intestine. This medication has some side effects include tiredness, vomiting, heartburn, diarrhoea and headache. Corticosteroids can help reduce inflammation anywhere in your body.

The doctor will not give the patient this medication if they don't have to as it has numerous side effects, including a puffy face, excessive facial hair, night sweats, sleeplessness and hyperactivity. Some more serious side effects include high blood pressure, diabetes and osteoporosis, which is also known as brittle bones, causing fractures in bones. If the medication is taken by younger people it can lead to underdeveloped growth. They only use this medication if the symptoms and the inflammation are moderate to severe. They will only use it none of the other medications respond. Corticosteroids are not for long-term use.

But, they can be used for around three to four months. Immune system suppressors are drugs that also reduce inflammation; they target the immune system rather than directly targeting and treating the inflamed area. This drug is sometimes used combined with other drugs such as a combination of Sulfasalazine and Mesalamine has been shown to work better than just taking the drugs alone. Surgery Surgical procedures include strictureplasty, resection, colectomy, and proctocolectomy. During a strictureplasty, the surgeon guides an inflated balloon attached to a catheter through the intestine.

If the balloon encounters a restricted area, it may indicate there is a narrowing in the intestine. To open up the blocked area, a cut is made lengthwise along the intestine. The cut is then sewn up in the opposite direction, which has the overall effect of widening the obstructed area

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without removing any organs. If there is more than one obstructed area it may be treated during one surgery. Resection is where they take part of the infected organ away from the body. A colectomy is a procedure that sees the colon being removed from the body, either partially or fully.

Proctocolectomy is the surgical removal of the rectum and all or part of the colon. Bibliography Website | What is it for| <http://www.nhs.uk/Conditions/Coronary-heart-disease/Pages/Diagnosis.aspx>| Coronary heart disease - Diagnosis | <http://www.nhs.uk/Conditions/Coronary-heart-disease/Pages/Symptoms.aspx>| Coronary heart disease - Symptoms | <http://www.nhs.uk/NHSEngland/NSF/Pages/Coronaryheartdisease.aspx>| Coronary heart disease- treatments | [http://pennstatehershey.adam.com/content.aspx? productId= 10; pid= 10; gid= 000103](http://pennstatehershey.adam.com/content.aspx?productId= 10; pid= 10; gid= 000103)| Crohn's disease|