

LIFESTYLE RELATED DISEASE (CORONARY HEART DISEASE)

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1.INTRODUCTION:

Coronary heart disease (CHD) is the most common problem of heart disease which affects the internal blood vessels of the coronary arteries of the human heart. In medical languages, coronary heart disease also known as “Ischaemic” artery disease is caused by the disruption in the blood flow due to the fatty substances present within the arteries. CHD is one of the major causes of death prevalent in the UK as around 10% of the population under the age of 55 is suffering from this disease irrespective of gender although CHD is more prevalent among men (Khandaker et al., 2020). The aim of this report is to present a discussion on the routine health and lifestyle measures depending on the health conditions of the patients.

2. ANATOMY AND PHYSIOLOGY:

The coronary arteries of the heart are divided into two sections. The left coronary artery which is attached to the side muscles of the left ventricle is descended into several branches by the name of obtuse marginal arteries that are responsible for supplying blood to the left side of the heart. On the other hand, the other branches that are recognised as circumflex branches encircle the muscles that supply blood to the outer spectrum of the heart. The right Coronary artery (RCA) is divided into three sections by the name of the septal perforator, sinoatrial and atrioventricular which are responsible for regulating the rhythm and nodes of blood (Al-Lamee et al., 2018). As the main purpose of the coronary arteries of the heart is to maintain the regular blood flow, any kind of disruption in the system will lead to disruption in the transportation of the nutrients and oxygen levels in the blood. In most cases, the unused fatty substances of the blood are lined up within the inner walls of the arteries causing it to narrow the passage of the artery thus reducing normal blood flow within the human heart. In medical terms, this situation is identified as Atherosclerosis and this kind of constant build-up of the inner lining may lead to a blockage that may cause a heart attack or in some certain cases death of the human beings (Kaski et al., 2018). Most of the symptoms of coronary heart disease (CHD) include chest pain (angina), shortness of breath, nausea and pain throughout the body. There are mainly two kinds of angina that are prevalent in the cases of CHD. Stable angina is the most common form of chest pain which is mainly triggered by external triggers such as excessive exercise, stress etc which might or might not be related to CHD directly. On the other hand, unstable angina does not have any physical symptoms apart from sudden pain or myocardium discomfort caused by irregular blood flow within the heart (Motwani et al., 2018).

The reason for CHD might be hereditary or a lifestyle disorder of the population. CHD can be diagnosed with medical tests such as a radionuclide scan or a treadmill test. Other diagnostic measures in severe CHD cases include MRI, Holter monitor, coronary catheterization, echocardiogram and coronary angiography. The treatment procedure for CHD is divided into three sections, which are the direct intake of medicines such as Aspirin or Beta-blockers or Calcium channel blockers that help to reduce the build-up of the plaque in the wall of the arteries and regular the blood flow within the heart. Other than medication, changes in lifestyle such as regular appropriate exercises, and diet can help the patients suffering from CHD (Morris et al., 2021). In case of severe cases, the clinicians can

recommend angioplasty and other surgeries such as coronary bypass surgery for the patients.

3. HEALTH AND LIFESTYLE ROUTINE MEASURES:

The risk of CHD can be reduced by implementing the right health and lifestyle choices in the daily routines of the individuals. The lifestyle choices for CHD patients are having a balanced diet, physical activity, avoiding tobacco, and controlling blood sugar and cholesterol level. According to the NHS, the patients suffering from CHD are recommended to have a low fat and high fibre food that includes fresh vegetables and fruits for the patients. The patient needs to have at least five portions of meals in a day including health grains. The patient also needs to restrict their salt intake by up to 0.2 oz in a day to control the blood pressure of the patient. The patients can have unsaturated fats such as olive, avocado, nuts and pumpkin seeds and the saturated fats should be totally avoided as it increases the chance of cholesterol in the blood (McGregor et al., 2020). Combining a healthy diet with minimal regular exercise can assist in preventing coronary diseases in the individual. Aerobic exercises such as walking, running, swimming and dancing can be recommended for the patients according to their current condition and other aspects of physical fitness of the individual. Regular exercises or at least minimal physical activity reduces the cholesterol level in the blood, maintains blood pressure and regulates the circulatory flow within the human body.

Smoking and alcohol consumption is considered a major threat to developing CHD. the increased smoking tendency the people causes coronary thrombosis in the individual which refers to the downstream effect of atherosclerosis that affects the narrowing diameter of the arteries and blocks the blood flow due to the build-up of cholesterol and other plaque and leads to myocardial infarction. Coronary thrombosis can be considered a minor case of heart attack caused by unstable angina and this problem is more common in the population under the age of 50. Alcohol consumption of the individual should also be limited for preventing CHD, where a person should not drink more than 14 units of alcohol in a day (Jalal et al., 2019). However, in any case, an individual should avoid binge alcohol consumption as it increases the chance of heart blockage and heart failure of the individual.

Maintaining a healthy lifestyle also includes proper monitoring and keeping a track of the other components such as blood pressure, diabetes, blood CBC, CRP, ASO, RA, lipid profile and so on. For example, the target blood pressure of the patients suffering from CHD should

be lower than 140/90 and the level of glucose in the blood should be below 130/80mmHg (Castela Forte et al., 2021). The patients suffering from CHD or have been diagnosed with increased cholesterol levels in the blood or disruption in lipid profile, the individual must include a complete medical check-up at least twice a year. If the patients suffering from CHD have a history of heart diseases in the family, the clinician might prescribe some complementary medicine dosage as per the physical condition of the individual.

4. HEALTH AND SOCIAL CARE PRACTICE:

Despite the decrease in the death rates due to cardiovascular diseases (CVD), coronary heart disease or CHD has been a prevalent problem in the UK according to the epidemiological reports of the National Health Care system of the country, around 80000 people die each year due to coronary diseases (Khandaker et al., 2020). The increased mortality rate in the country is addressed by various causes such as age, social deprivation, habits of smoking and alcohol consumption, infrequent exercise habits, imbalanced nutrition, heredity and lack of psychosocial well-being of the individual. Not only in the UK, but CHD has also been a major problem across the globe as around 32% of the total global population has been suffering from coronary diseases (Khandaker et al., 2020). To support the increased rate, related to CHD, the NHS Long Term Plan (NHSLTP) has included an ambition for preventing cardiovascular diseases that includes heart attacks, cerebral strokes, and dementia cases in the next ten years. This plan has assimilated the identification of the people who are already suffering from cardiovascular diseases and at least have physical symptoms such as Atrial Fibrillation (AF), hypertension, high cholesterol and obesity (Ingoe et al., 2021). To support the NHSLTP policy, the government has also opted for the National CVD Prevention System Leadership Forum (CVDSLFF) which is responsible for recognising the high-risk conditions related to heart blockage and other forms of coronary thrombosis. These risk factors can be recognised by the concept of ABC which stands for Atrial Fibrillation (A), Blood Pressure (B), and Cholesterol (C) (Smith et al., 2021). Underpinned by the NICE guidance on the prevention of heart-related diseases has set various health and social care objectives such as enhancing a change in the overall reported cases of heart attack and so forth. The implementation of the NICE guidelines and the Health Improvement Network of the UK has reduced the threat of coronary thrombosis by 20% in the last five years (Kelion and Nicol, 2018). The Health Improvement Network of the country consists of other interprofessional management practices such as general practitioners (GPs) had addressed five health and social care objectives such as “stop smoking services”, weight

management and prevention of obesity, increasing the rate of physical activity, “alcohol reduction services” and “NHS diabetes prevention programme” that is directly or indirectly related to the cardiovascular diseases such as CHD (Hecht et al., 2019).

In health and social care practices, the information related to the patients such as body functioning, familial history of diseases and the already prescribed and consumed medication and other treatment processes are considered significant in informed care planning for the individuals and community services such as campaigns related to the awareness of cardiovascular diseases or general health education. These pieces of information are necessary as they help the clinicians to identify the pool of data related to the current physical condition of the patient, diagnose the constrictive patterns that help them to predict the necessary types of equipment and treatment for patients of the illness and identification of translocation approaches for improving the overall clinical care (Kelion and Nicol, 2018).

5. RECOMMENDATION:

There are certain factors regarding any kind of cardiovascular disease that cannot be changed and interpreted for prevention purposes. These factors include age, sex, family history and ethnicity of the individual. Based on the aforesaid discussion, the following recommendation can be provided to the patients who are suffering from coronary heart disease (CHD).

- Maintaining a normal blood pressure level and refraining from hypertension is an important task. The blood pressure level of the adults should be checked at least once a month for people above the age of 35. The fatty substances such as cholesterol and triglycerides level should be at least checked once a year. Other health issues such as high BMI, obesity, calcium deficiency and diabetes should be treated properly as per the guidelines provided by the clinician (Poon et al., 2020).
- Having a healthy lifestyle should be opted by everyone. The diet of the individual must contain limited salt, saturated fat and high fibre foods. The DASH diet is an example of healthy eating habits for people suffering from CHD. Regular exercise as per the suggestion of the clinician and good sleep habits should be encouraged. If the patient is mildly suffering from CHD issues, the patient must engage in at least 150 minutes of daily physical activities that help to remove plaque from the blood vessels (Davidson et al., 2018). Sleeping disorders such as sleep apnoea should be treated effectively by the individual.

- Stress management activities such as performing recreational activities and communicating with peers and family members are effective for reducing the rate of heart-related diseases. Lifestyle disorders such as excessive smoking and alcohol consumption should be effectively avoided by the individual suffering from CHD. Stress management and dealing with other mental health issues such as anxiety, hypertension, depression etc will lead to positive behavioural changes in the CHD patients (Davidson et al., 2018).

6. CONCLUSION:

The physiological concepts connected to Coronary Heart Disease (CHD) have been explored in this paper, as well as the health and social care approach to these difficulties. In the United Kingdom, coronary artery disease (CAD) is a common health concern, with most people suffering from it. Because to lifestyle issues, the country has been affected. Approximately 17%. A large percentage of the population in the country still has undiagnosed heart problems, high levels of fatty substances in the blood and high blood pressure which have the potential to lead to CHD or any other cardiovascular diseases. The NHS has implemented CVD ambitions and secondary prevention planning for restricting heart diseases within the next ten years.

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