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HEART FAILURE IN YOUTH

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ABSTRACT

The youth of today is fearless, not afraid of the choices they make, an attitude that is reflected in their approach towards their health also. Most of them tend to believe that they will stay strong and fit, irrespective of their lifestyle choices. With a variety of food ordering mobile apps and large pocket money, young people are easily ordering all types of food to fulfill their desire for having global cuisines, as it suits their lifestyle, and helps them fit in their peers. This new trend of unhealthy food habits among youth in India has put them at risk of developing obesity, diabetes, heart attack. These diseases are the silent killers of our generation. When we talk about young people in India, more than 19% of children in the country are overweight or obese and 45% of youth are addicted to bad habits like smoking, alcohol consumption, drug addiction, etc leading to an increase in the risk factor of CVD.

Keywords: - Obesity, Diabetes, Heart Attack, CVD, Addiction.

INTRODUCTION

The heart is a muscular organ in most animals, which pumps blood through the blood vessels of the circulatory system. Blood provides the body with oxygen and nutrients, as well as assisting in the removal of metabolic wastes. The Heart weighs between 7 and 15 ounces and is a little larger than the size of your fist. The average heart beats 100,000 times a day and night, to supply oxygen and nutrients throughout the body. Blood pumped by the heart also shuttles waste products such as carbon dioxide to the lungs so it can be eliminated from the body. Proper heart function is essential to support life. Coronary artery disease (CAD), commonly known as heart disease is a condition in which cholesterol, calcium, and other fats accumulate in the arteries that supply blood to the heart. This material hardens forming a plaque that blocks blood flow to the heart. When a coronary artery narrows due to plaque buildup or some other cause, the heart muscle is starved for oxygen and a person experiences chest pain known as angina.

Heart Failure

It is a chronic condition in which the heart doesn't pump blood as well as it should. Certain conditions, such as narrowed arteries in your heart or high blood pressure, gradually leave your heart too weak or stiff to fill and pump efficiently. In heart failure, the main pumping chambers of your heart may become stiff and not fill properly between beats or it may become damaged and weakened and the ventricles stretch to the point that the heart can't pump blood efficiently throughout your body.

Table No. 1:

Type of Heart Failure	Description
Left-sided Heart failure	Fluid may back up in your lungs, causing shortness of breath.
Right-sided Heart failure	Fluid may back up into your abdomen, legs, and feet, causing swelling.
Systolic Heart Failure	The left ventricle can't contract vigorously, indicating a pumping problem.
Diastolic Heart Failure (also called heart failure with preserved ejection fraction)	The left ventricles can't relax or fully, indicating a filling problem.

SYMPTOMS

Many people with heart disease notice symptoms during physical exertion or exercise. The heart needs more oxygen and nutrients during physical exertion, so people with heart disease may notice symptoms when they are active. Symptoms of heart disease may include:

- Jaw pain
- Chest pain
- Back pain (typically left-sided)
- Shortness of breath.
- Nausea
- Lightheadedness, dizziness
- Abdominal pain
- Irregular heartbeat
- Weakness (especially at rest)



HEART-RELATED DISEASES AND TREATMENT:

Prevention is the best way to avoid a heart problem later in life. Controlling as many of the following risk factors as possible, starting in childhood, will help reduce your child's risk of developing heart disease as an adult.

- High blood pressure
- High cholesterol
- Smoking
- Obesity.
- Physical inactivity etc.

High Blood Pressure

Fewer than 3% of children in the United States have high blood pressure. But high blood pressure is a serious condition in childhood and often goes undetected because it causes no symptoms. Make sure that your child's blood pressure is checked at his or her yearly check-up. High blood pressure (hypertension) in children is not congenital heart disease, but it can have a hereditary link. For that reason, children born into families with a history of high blood pressure need to have their blood pressure watched with special care. Most cases of high blood pressure in children are the result of another disease, like heart or kidney disease. This is called **secondary hypertension**. The doctor will measure your child's blood pressure using a device called a sphygmomanometer. Blood pressure readings measure the two parts of blood pressure: systolic and diastolic pressures. Systolic pressure is the force of blood flow through an artery when the heartbeats. Diastolic pressure is the force of blood flow within blood vessels when the heart rests between beats.

Treatment:

- Help your child maintain healthy body weight. Children who are overweight usually have a higher blood pressure than those who are not.
- Increase physical activity.
- Limit how much salt they eat.
- Warn them about the dangers of cigarette smoking. The nicotine in cigarettes causes the blood vessels to narrow, making it even harder for blood to flow through the vessels.

Cholesterol

Less than 15% of children have high cholesterol levels, but studies have shown that fatty plaque buildup begins in childhood and progresses into adulthood. This disease process is called atherosclerosis.

Cholesterol is a fat-like substance called a lipid that is found in all body cells. The liver makes all of the cholesterol your body needs to form cell membranes and to make certain hormones. Extra cholesterol enters the body when you eat foods that come from animals, like meats, eggs, and dairy products and from foods high in saturated fats. Cholesterol travels to

cells through the bloodstream in special carriers called lipoproteins. Two of the most important lipoproteins are low-density lipoprotein (LDL) and high-density lipoprotein (HDL). Other risk factors for high cholesterol include obesity, high blood pressure, and smoking.

Treatment:

- Get plenty of exercises. Encourage them to exercise 30 to 60 minutes on most days of the week.
- Eat foods low in cholesterol and fat. Have your child eat more whole grains and fresh fruits and vegetables. (Note: You should not restrict how much fat children eat if they are younger than two years old. Infants need fat for growth and development. After the age of two, children should start to eat fewer calories from fat).
- Know the dangers of cigarette smoking.
- Learn to control weight to avoid the risks associated with obesity.
- Control their diabetes, high blood pressure, or other conditions that contribute to heart disease. Children who have been diagnosed with high cholesterol will need to at least follow a special program of diet and exercise.

Smoking

According to the Centers for Disease Control (CDC), nearly 25% of high school students use some kind of tobacco product, and nearly 4,000 kids under age 18 try their first cigarette every day. 9 out of 10 smokers had started smoking before they finished high school. This means that if children can stay smoke-free in school, they will probably never smoke. Better known for increasing your risk of lung cancer, cigarette, and tobacco smoking also increase the risk of heart disease and peripheral vascular disease. Nicotine narrows the blood vessels and puts an added strain on the heart. Although nicotine is the main active agent in cigarette smoke, other chemicals and compounds like tar and carbon monoxide are also harmful to the heart. Research has shown that smoking increases heart rate, tightens major arteries, and can create irregularities in the timing of heartbeats, all of which make the heart work harder.

Treatment:

- Talk to them about the bad effects of smoking, such as yellow teeth, bad breath, smelly clothes, and shortness of breath. If your child likes to play sports, tell him or her how smoking can damage the lungs and reduce the supply of oxygen that the muscles need to work properly.
- Talk openly with your child about the dangers of smoking.
- Be a role model for your child. If you smoke, quit. And do not allow others to smoke in your home.
- Advise them on how to quit, but be helpful and supportive.
- If you smoke, agree to quit with them. About half of all teen smokers have parents who smoke.
- Have your child see a doctor for advice on how to quit.

Smoking is the single most preventable cause of death. If smoking rates among teens do not decrease, 5.6 million Americans will die later in the life of diseases caused by smoking.

Obesity

Obesity is a major risk factor for heart disease. Recent studies have shown that obesity is linked to more than 110,000 deaths in the United States each year. Childhood obesity in the United States has become a problem in recent years. As a result, there has been a sharp rise in obesity-related problems like type 2 diabetes, which is usually seen only in adults. Because obese children are more likely to be obese adults, preventing or treating obesity in childhood may reduce the risk of adult obesity. In turn, this may help reduce the risk of heart disease, diabetes, and other obesity-related diseases. Our bodies are made up of water, fat, protein, carbohydrates, vitamins, and minerals. Obesity means that you have too much body fat. Obesity in children is dangerous because researchers believe that the fat cells we gain as children stay with us as adults. Obese children may have 5 times more fat cells than children of normal weight.

Treatment:

- Control portions (the amount of food they eat) and have them eat fewer calories.
- Do not use food as a reward for good behavior or good grades.
- Limit their snacking and be aware of the snack foods they are eating.
- Eat meals as a family so it is easier to know what and how much your child is eating.
- Increase their physical activity and find fun exercise activities you can do as a family.
- Limit the amount of time your child spends watching TV and playing on the computer.

Childhood obesity is hard to manage because often, once healthy body weight is achieved, the child will go back to their old habits.

Physical Inactivity

Physical inactivity is a major risk factor for heart disease. People who do not exercise have an increased risk of heart disease. Physical inactivity also increases the risk of developing other heart disease risk factors such as high cholesterol, high blood pressure, obesity, and diabetes.

Treatment:

- Help control weight. Because obese children are more likely to be obese adults, preventing or treating obesity in childhood may reduce the risk of adult obesity. In turn, this may help reduce the risk of heart disease, diabetes, and other obesity-related diseases.
- Strengthen bones. Regular exercise leads to better bone development and will lower the risk of thin or brittle bones (osteoporosis) in adulthood.
- Increase self-esteem and self-confidence. Exercise can make your child feel better physically and mentally.
- Improve cardiovascular health. Exercise lowers blood pressure, increases the amount of HDL or “good cholesterol” in the blood, and reduces stress levels.

Exercise is important for all children, even those who do not like sports, have little coordination, or have a disability. By focusing on active “play” instead of exercise, children will most likely change their exercise behaviors and increase their physical activity on their own.

SUMMARY

Heart failure is gradually increasing disease with no primary symptoms. The key to prevent heart failure is to reduce the risk factor to heart failure. In this review we have concluded that the lifestyle of today's youth is responsible for induces of heart failure so a change in lifestyle can help to prevent chances of heart failure. Health diet rich in fiber, vitamins, apart from fast food and cholesterol-rich food keep away the chance of heart diseases. Regular and daily physical activity lowers the risk of heart disease.

Some people reduce their stress in unhealthy ways such as overeating, drinking, alcohol or smoking but need to find alternative ways to manage stress such as physical activity, Music therapy medication which help to improve health and also help reduce heart disease.

REFERENCES

1. Harsh Mohan, et al textbook of Pathology, 7th edition, Jaypee Brothers Medical Publisher(P) Ltd.2015.
2. Ross and Wilson Et Al textbook of Human Anatomy and Physiology.
3. Gerard J.Tortora, Bryan Derrickson, et al textbook of Anatomy and Physiology, Willey India Pvt. Ltd.
4. <https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.texasheart.org/heart-health/heart-information-center/topics/heart-disease-risk-factors-for-children-and-teenagers/&ved=2ahUKEwi7scrjtPLnAhXyxzgGHTauDiwQFjABegQIDhAG&usg=AOvVaw27VNTAhgwHdvr0Ij4i8OQP>.