Effects of Yoga and Cardiac Rehabilitation in Patients with Heart Failure

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Abstract:-

Heart failure has become a global public health disease. It affects many people worldwide. India is also increasing day by day. Heart diseases are becoming a major cause of death of people. Remedy and control of heart failure events is very important to save human life, in such a way, it is necessary for patients with heart failure to implement programs like regular exercise, yoga and heart rehabilitation on serious conditions which is a heart failure Patients dream of living life again It can prove to be helpful in realizing, the purpose of this research article is to study and observe heart rehabilitation and yoga as a tool for the prevention of heart disease, and a performance measurement in the care of patients suffering from heart disease Exercise presenting its current status in form The role of integrated programs of secondary prevention services such as yoga and heart rehabilitation is to review the effect of exercise and yoga on physical systems for HF patients. In fact, on the basis of this study, hopes arise that according to the advice of the doctor on heart failure problems, regularly mild exercise yoga and heart rehabilitation programs can be successful to a large extent.

Keywords:- Heart Failure, Cardiac rehabilitation, Yoga Therapy, Exercise, Quality of Life,

Introduction:-

The heart is one of the vital organs of the human body, due to its condition, a person can also die, so it is very important for everyone to take care of heart health. Due to lack of awareness about heart health and some lifestyle habits, Cardiovascular Disease (CVD) is one of the major causes of mortality worldwide. Heart failure is a major public health concern in countries around the world. Every year about 31% of the global mortality rates cause deaths due to heart disease. About 85% of the total deaths caused by cardiovascular diseases are due to these heart disorders. It is estimated that over 25 million people worldwide are affected by HF. At the same time, more than 4 million people in India are suffering from heart failure problems, heart -related heart diseases

are becoming a major cause of death of people day by day. The heart is one of the most important organs in the human body. It is a powerful muscle of fist -shaped shape that pumps blood throughout the body through a network of blood vessels, along with the heart and blood vessels form the body system of the body. Human beings to be free from and control such serious heart failure causes have become universal form for the medical field. To increase awareness about preventive measures for management of heart disease and heart diseases and people have symptoms and signs of heart disease To educate about The idea of celebrating Heart Day globally for aim was presented by former president of the World Health Association, Antony Bei de Luna, on the basis of which World Heart Day was established in 1999 in collaboration with the World Health Organization. The world officially celebrated World Heart Day on 24 September, 2000 for the first time. Then every year on the last Sunday of September, the mission to create awareness about the management of cardiovascular diseases continues so that there is no further complexity and people can be encouraged to adopt a healthy lifestyle to prevent and Could be control heart related diseases.

Heart & Heart Failure Disease:-

The Heart is a conical hollow muscle organ located in the middle mediastinum and attached within the pericardium. The Greek name of the heart is cardia which works to collect oxygen -free blood from all parts of the body, takes it to the lungs to exclude oxygen and remove carbon dioxide. Then, it carries oxygen -rich blood from the lungs and distributes it to all the organs of the body. The heart pumps about 7,200 litters of blood throughout the body. The heart is located in the middle of the chest and turns slightly to the left. . On average, the heart beats about 100,000 times per day, an adult's heart beats about 60 to 80 times per minute, and the heart of new-borns beats faster than an adult who is about 70 to 190 per minute. **Heart failure** is a disorder and the heart is a symptom of ventricular laxity, in which the heart is unable to pump sufficient amounts to meet the blood flow requirements of the body. Due to which there is a decrease in blood flow, blood deposition (congestion) in the veins and lungs, or other changes that make the heart even more weak or strict. Heart failure means that the heart is not able to pump oxygen -rich blood according to the needs of the body by the heart, it is also called a congestive heart failure (CHF), despite the progress in treatment and prevention, it The main reason for. This may result in disorders of pericardium, myocardium, endocardium, heart valve, large vessels or some metabolic abnormalities. Under the symptoms of heart failure, a person has to face problems in breathing, swelling in the feet, physical

mental fatigue, etc. and heart failure can mainly cause high blood pressure, diabetes, smoking, overweight due to heart failure Are. The types of heart failure are classified according to the **Ejection Fraction** (EF), which is the percentage of blood pumped by the heart with each beat and measure how well the heart is pumping. A healthy person has an ejection fraction (EF) between 50 and 70 percent, that is, the left ventricle removes about 50 to 70% of the blood in it. Heart failure with low ejection fraction- The heart muscles do not shrink properly, which affects blood circulation in the body. It is also called systolic heart failure or Heart Failure with a Reduced Ejection Fraction (Hafref). Protected ejection is a heart failure with fruits fractured heart failure or Heart Failure with Preserved Ejection Fraction (HFpEF) Heart tight in this Lives and does not normally relax after contraction, which reduces its ability to fill the blood. ,There are many variable risk factors for heart diseases, including -**Physical factors**- such as insufficient physical activity, high sodium intake, high alcohol consumption and tobacco smoking **Metabolic factors-** such as hypertension, high fasting plasma glucose, high body-reversal index, low density lipoprotein (LDL) high levels of cholesterol and diabetes. **Environmental factors-** such as ambient air pollution etc. In 2021, according to the Global Burden of Disease Study, high blood pressure was a major convertible risk factor for globally mortality that contributed to 10.8 million CVD deaths worldwide.

Literature Review:-

According to **Kundu et al., (2022)** The WHO's non-commercial disease (NCD) has about 53% of the total deaths in non-communicable diseases based on data on data, of which CVD is a major part of 24%. Along with the turn of the century, Cardiovascular Disease (CVD) has become a major cause of mortality in India. , The global status on the NCDS Report (2010) reported that India had over 2.5 million deaths from CVD in 2008, two-thirds of coronary heart disease (CHD) and one-third due to stroke. Studies suggest that CVD affects Indians at least a decade ago and its most productive midlife years compared to the European dynasty. According to **Jain, et al. (2022)** the 12 -week yoga -exercise lifestyle has seen many beneficial effects in patients with stable systolic HF when added to standard directed medical therapy. And there has been a significant improvement in QOL, it was observed that there was no heart side effects such as shortness of breath, heart arrhythmia during yoga sessions. According to **Lavie et al., (2020),** CR, of course, clearly improves major CVD risk factors, and especially improves cardiorespiratory fitness. He in statistical model It Is shown that most of the clinical phenomena is reduced from CR and exercise

programs to be involved Patients with heart failure who improve fitness are capable of avoiding psychological risk factors and stress-inspired growth. According to **Taylor et al., (2023)** The CR is a clinically effective and cost-effective comprehensive model of secondary preventive care for patients with CHD and HF that improves functional capacity, well-being, and health-related quality of life, as well as reduces the risk of hospital admission and CV. According to **Alsulaimi et al.,** It has been well established that exercise and elevated physical activity has a beneficial effect in reducing CVD risk and protection from heart events. The exercise displays a strong correlation with a decrease in the risk of myocardial infarction (MI) and limits the damage caused by ischemia and reperfusion when such an MI event occurs. According to **R Pullen et al., (2018)** Based on structured study, it is very beneficial to do yoga and heart rehabilitation process for the treatment of cardiac patients. and the home -based running programs are appropriately safe for HF patients and facilitate compliance. According to **Mampuya WM. (2012)** Regular physical activity improves HDL-cholesterol, reduces intestinal fat and reduces blood pressure along with glycaemia. Another objective of cardiac rehabilitation is to control convertible risk factors. This includes not only smoking termination and blood pressure, diabetes and adaptation of the drug for cholesterol control, but also medical education that emphasizes the importance of medical life changes. According to **Franklin et al.,** (2013) CHD patients should be advised to participate in a 30 to 60-minute moderate-intensity aerobic physical activity, such as walking at least 5 days per week, resistance training for 2 or more days per week, Supplementary and daily lifestyle -growing activities (eg, work Horticulture, and walking) The main goal of such activities is to improve CRF and take patients out of high risk conditions. According to **Kachur et al.,** (2017) The CR's role in increasing the good of heart patients is directly related to improving functional capacity. It enables by improving both the physical work capacity and cognitive functioning of the person. According to **Taylor et al., (2023)** Cardiac rehabilitation is a multicomponent evidence-based complex intervention that provides significant benefits to patients with heart failure, including health quality of life. Some clinical community recommended by the current European and International Clinical Guidelines need to implement heart rehabilitation as a major column of heart failure management as well as drug and medical equipment provisions. According to **Belal AA. (2024)** Risk factors associated with the spread of heart disease (CVD) were identified in Bangladeshi patients, in which patients with high blood pressure were seen in the examination of 995 adults aged 18 and above. Among the examined adults, 452 were patients with high blood pressure: 39 of these patients were

suffering from CVDs. The purpose of the study was to identify some socio-economic factors for the propagation of diseases between a group of 39 patients. Which shows that patients with high blood pressure cannot avoid the effects of the variable responsible on CVD if people become conscious and try to lead life in a healthy way. They should be cautious in a leading life to avoid diseases. According to **Sores et al., (2023)** Cardiovascular Disease (CVD) is the leading causes of mortality globally. Its prevalence extends for several generations and does not choose a gender. Psychological intervention is done to help patients through adaptation process and mainly relates to emotional and behavior management and psychotherapy about the lifestyle of patients. We focus on this issue in terms of a cognitive-behavior intervention, in which the beliefs and meanings of the disease are worked to achieve emotional regulation and promote self-care. The adaptation process involves helping heart patients to reduce fear, anxiety and depression in response to the necessary changes in their lives. Part of optimization of the disease is also preventive. According to **Manchanda (2014)** Yoga can also be a useful tool for cardiac rehabilitation because yoga improves physical fitness, stress reduction and general well -being. Yoga also contributes to physical stimulation, better sleep and loss of appetite. Some small tests have demonstrated the benefits of yoga in heart rehabilitation.

Objectives:-

(i) To know about Heart Failure Disease.

(ii) To know about the Cardiac Rehabilitation Program (CRP) and discuss the benefits of the CRP for patients with Heart Failure.

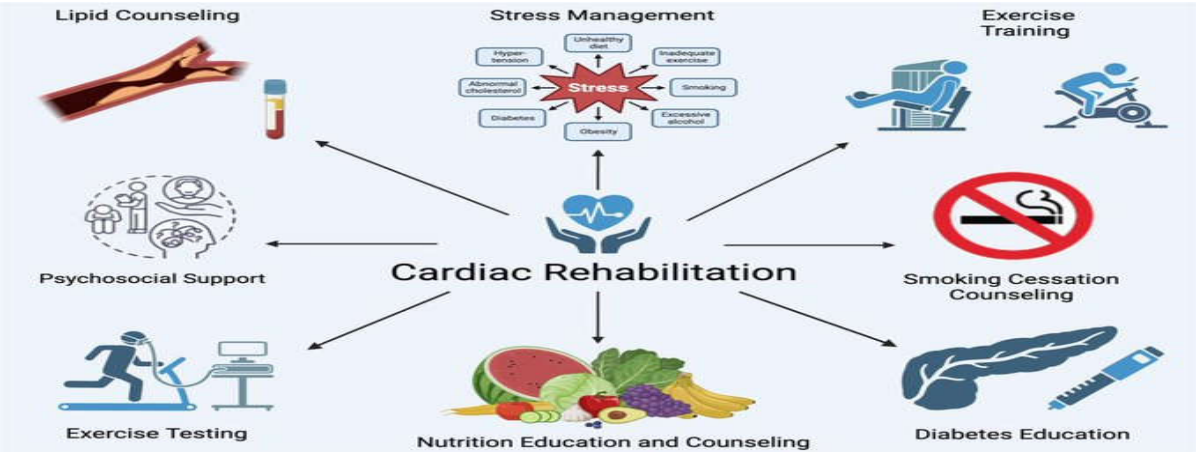
(iii) To know about Yoga Therapy. Yoga how to be beneficial in improving the Quality of Life of a patient with Heart Failure.

Result and Discussion:-

Cardiac Rehabilitation (CR): It How to Effective for Heart Failure Patient ?

Cardiac Rehabilitation is a systematic and personal program of exercise, education, counselling and support. This medical supervised program helps people overcome heart attacks, heart surgery or heart failure. Future heart problems Can help reduce risk. CR program is an individual exercise program. It is designed to improve the health of people suffering from heart disease. CR is a program that helps people change a long -term lifestyle to live a healthy life, it is often suggested to those who have a heart attack, a heart disease or a heart that has a heart attack, or whose heart Related surgery has been done. The Cardiac Rehabilitation program includes exercise training,

emotional support and education about cardiovascular lifestyle. Healthy lifestyle habits include eating nutritious diet, controlling weight and quitting smoking. This can help people reduce their risk factors, such as high blood pressure, high cholesterol and diabetes. Cardiac Rehabilitation can reduce the risk of heart related problems and heart disease in future. According to the US Public Health Service, a CR program has been defined as a systematic program that includes activities, medical evaluation, prescribed practice, education, regular counselling sessions of patients with heart disease. The main goal of the CR program limits the physical and psychological effects of the heart disease. The American Heart Association and the American College of Cardiology recommends a CR program. It is recommended to participate in the heart rehabilitation program for all those who have such cardiovascular diseases like - **Suffering from Hart Attack-** A person recovering from a heart attack often to recreate his strength and confidence. Can benefit from a structured rehabilitation program. **Patients with Heart Surgery-** People who have gone through



processes such as heart surgery or valve replacement can increase recovery through heart rehabilitation process. **Chronic Heart Conditions-** A person suffering from heart failure, angina or other chronic cardiovascular diseases can be capable with the help of Cardiac Rehabilitation. **Heart failure risks-** CR can be availed for diagnosis of risk of heart disease, such as high blood pressure, high cholesterol or diabetes, etc. Therefore, in fact, CR has proved to be an effective tool for the diagnosis of Cardiovascular Diseases of patients.

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Cardiac Rehabilitation Can Help Heal Your Heart Failure Disease:-

1. **Better heart health:-** CR programs, strengthening the heart, improving blood circulation, and helping to increase overall heart health through customized exercise schemes.

2. **Increase in physical activity:-** CR program increases energy levels, stamina and overall fitness by people involving regular physical activity.
3. **Reduction of heartfelt phenomena in future:-** Affection in the CR program can reduce the risk of future heart attacks, strokes and other cardiovascular problems.
4. **Symptoms Management:-** Patients often experience a decrease in symptoms such as chest pain, shortness of breath and fatigue due to involvement in the heart rehabilitation process.
5. **Control and management in weight:-** CR can help a person's healthy lifestyle and dietary changes, reducing the pressure on the heart, helping to reduce or maintain weight.
6. **Emotional support:-** CR program provides a positive environment, where patients can connect with others facing similar challenges, helping to reduce anxiety and depression.
7. **Education and Awareness:-** During Rehabilitation program, healthcare providers are given valuable education about living healthy heart life, including a balanced diet, exercise, drug management and stress-reducing techniques to keep the heart healthy. Also regular check-up and monitoring are ensured.
8. **Better `Quality` of `Life`:-** The CR program promotes changes in permanent lifestyle in the participant's life and attach more confidence in their daily activities and hobbies with better life quality. Which can lead to healthy life for a long time.

Yoga: How to beneficial for Heart Failure Patient ?-

The word Yoga is derived from Sanskrit **'Yuz'** metal which means to connect or unite. In fact, yoga is the activity of connecting the mind and body to each other. It is a spiritual discipline, The practice of Yoga helps in harmony in the mind and body. In the Gita, Shri Krishna has said at a site **'Yoga: Karmasu Kaushalam'** (Skill in deeds is yoga.) which is to achieve self-realization. Talking about the importance of yoga, this human life is an important genre for various dimensions physical, mental, spiritual, family, social, economic, moral, educational etc. The practice of yoga is to integrate the body with the mind that includes many exercises, meditation and various asanas that increase your heart health. Practicing yoga for heart health helps reduce blood pressure, cholesterol and blood sugar levels. Regular yoga exercises for two weeks can reduce the frequency of atrial fibrillation in patients suffering from heart attack.

Yoga Therapy is beneficial for patients with heart failure:

1. **Improvement in physical activity and balance:-** To remain inactive is one of the important risk factors for the development of heart disease. People who do yoga regularly

become active and live a healthy lifestyle and yoga keeps their heart safe. Some common forms of yoga are Hatha Yoga, Ashtanga and many other asanas that help in power training.

2. **Help in controlling stress:-** Stress is also one of the major causes that increase the risk of diseases like heart failure. Yoga plays an important role in managing stress and promoting peace. Yoga cortisol helps reduce the secretion of a stress hormone. Regular yoga for a few months can help reduce stress that improves your mental health.
3. **Helps in reducing blood pressure:-** High blood pressure is also responsible for many heart diseases, such as heart attack and stroke. According to the study, attention and other yoga techniques reduce systolic and diastolic pressure on blood pressure reading. Including yoga in your lifestyle helps in reducing the development of heart diseases.
4. **Help in controlling abnormal heart rate incidence:-** Atrial fibrillation is a fast heart rate that can increase the risk of stroke and heart failure. In such a situation, doing yoga has reduced the events of episode experienced by patients with atrial fibrillation patients. Those who have developed the habit of doing yoga are known for living a quality life. Yoga is also helpful in treating this medical condition and reducing the number of events.

Conclusions and recommendations

Based on the study, we can say that cardiac rehabilitation programs and yoga exercises are part of the long -term widespread care of heart patients. Heart disease is a growing problem in developing countries. It is likely to have a lifetime problem in children and young adults; In adults, heart diseases of industrial societies are becoming more prevalent. It is extremely important to control cardiac rehabilitation is an important component of the current multi-related approach to the management of coronary heart disease. Cardiac rehabilitation includes exercise training, education, risk reduction and consultation about lifestyle modification, and, often, behavioural intervention. The goal of heart rehabilitation services is to improve the physical and psychological conditions of patients. Improvement in exercise capacity in physiological benefits and reduction in risk factors (eg, smoking and lipid levels, body weight, blood pressure, reducing blood sugar), exercise and yoga provided through cardiac rehabilitation It is beneficial to reduce the progression of heart failures Psychological reforms through yoga exercises include depression, anxiety and stress reduction. All these improvements enable the patient to achieve mental, physical functional freedom and maintain satisfactory and proper activity. Therefore, individual activity and health

education and counselling in cardiac rehabilitation should be included individually for the treatment of the patient's needs and specific cardiovascular problems. Cardial diseases can be controlled by the nation's governments and non -governmental organizations using training facilities available through international and regional agencies.

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