RESEARCH ARTICLE

A REVIEW LITERATURE ON BROAD EXISTENCE OF HEART ATTACK

Rajesh Kumar Yadav, Shweta Singh, *Priya Chaurasiya, Kavita, Sadhana and Neda Fatima

Department of Pharmacy, Prasad Institute of Technology, Jaunpur- (U.P), 222001, India

ABSTRACT

Cardiovascular disease is a medical condition which are blocking the blood vessels can cause the heart attack, angina pectoris, heart stroke, myocardial infraction and arrhythmia. Many times people are reckless in nature and taken huge amount of smoking, does not pay attention on its own obesity and there is following factors which enhancing the rate of cardiovascular disease. Heart attack are widely occur in human populations and they are following category of heart attack such as heart failure, atrial fabrillation etc. They have following stages and following agents are taken to prevent from this disease. Angioplasty is technique it is mainly used in valvular disease by which help to open the blood vessels that supply blood to your muscles of heart. Heart attack patients are suffer from various difficulties such as chest pain, sweating, nausea, vomiting, weakness, dizziness, anxiety and shortness of breath and most of the common symptom are irregular heart beat. A thin soft tubes called catheter are used in this technique. This technique help to relive from angina and other cardiovascular disease. Angioplasty and related technique are also knowns as percutaneous (transdermal , transdermic, transcutaneous, coronary intravention.Angioplasty is a process in which a constrict of the coronary artery become wider angioplasty is involving minimally invasive and has a few recover time than by surgery. Then increase blood flow in the heart muscles but need for the chest surgery.

INTRODUCTION

Epedemiology: There are global burden of cardiovascular disease. 1990 to 2013 death rate in England declined 52% coronary heart disease, stroke 46%. About 610,000 people die of heart disease in United states every year 1 in 4 are dead. Heart disease are a type of disease by which affected both men and women. About 370,000 cases are treated per year [1]. In India over the past few years. In western countries only 23% of population are dead because of cardiovascular disease as compared to developing countries52% additional cases were observed 52%. However, recent, reports three large prospective studies from India suggest a higher probability of motality attributable to CVD (30 TO 42%) age standerdardised CVD mortality rate (255- 525 per 100000 in men) and (225 to 299 per 100000) population in women[2]. CVS rate of 272 per 100000 population in Inidia. the cardiologist here have been noticing a worrying trend the number of cases near about 30 to 40 year old is in the rise. The substance abuse causes increase the risk of cardiovascular disease. It is also most leading cause of death in China.

There are clinical assessment of cardiovascular risk such as determine the presence target organ damage (heart, kidneys, and retina), searches for all cardiovascular risk and clinical condition may enhance progenies and treatment[3]. Globally in India the United state from 1990 to 2016 the cardiovascular disease, adjusted life- years attributable to behavioral activity, dietry risk such as tobacco use low physical activity.

●**Heart attack**: The loss of blood supply is usually caused by a complete blockage of the coronary artery The atery are help the supply of blood in heart muscle. Hypertension is a risk of total mortality of cardiovascular disease.

Stages of heart attack

Stage 1: Breathlessness or tiredness
Stage2: Comfortable when resting condition
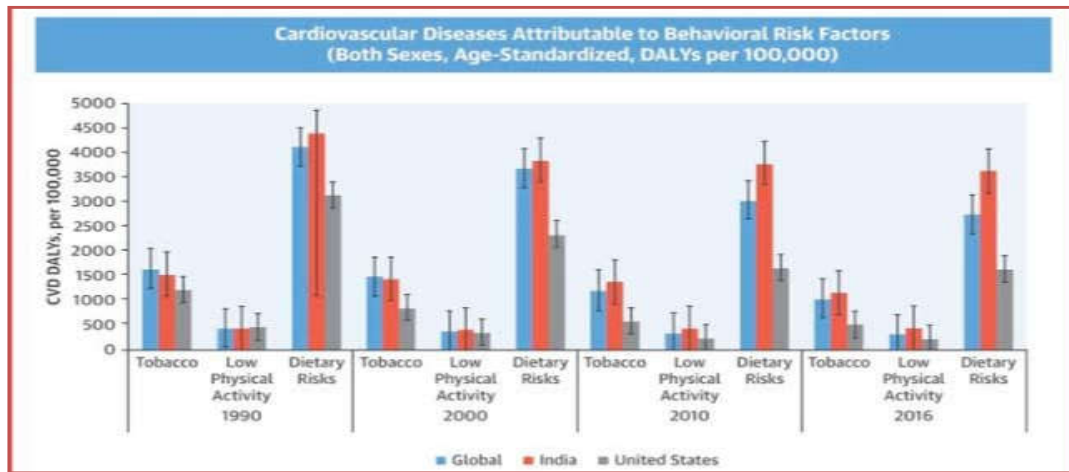**Stage 3:** Palpitation and tiredness
Stage 4: Heart and breath go faster even at rest.

Category of heart attack

- Coronary heart disease [CHD]
- Heart failure
- Atrial fabrilation
- Valvular disease[4].

*****Corresponding author: Priya Chaurasiya,**
Department of Pharmacy, Prasad Institute of Technology, Jaunpur-(U.P), 222001, India.

Coronary heart disease [CHD]: This is the most common cardiovascular disease which are occur in world- wide human population. The disease have been found in both developed and developing countries.
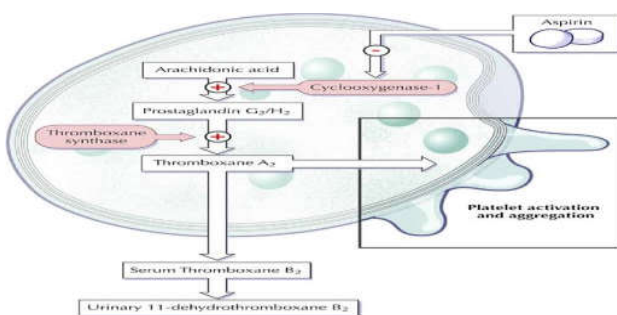
Risk factor

- Hypertension
- Smoking
- Diabetes mellitus
- Obesity
- Hyperlipidimia
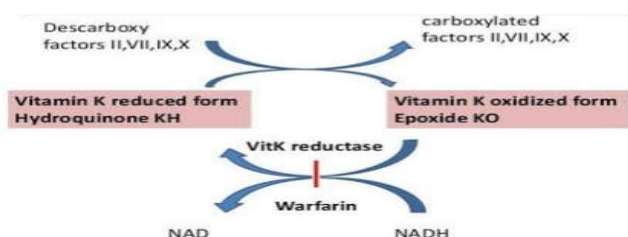- Homocystinuria
- Psychosocial stress[6].

Agents are used to treat CHD

- Antiplatelate
- Anticoagulant
- Beta blocker
- ACE inhibitor

Antiplatelets: Dipyridamole/ aspirin (Aggrenox)

Anticoagulants: Warfarin (Coumadin): Anticoagulant are used to prevent and treat thromboxin disorder in millions of patients across the world wide[6].

Beta blocker: (Metaptolol): This drug help to improve the survival rate after heart attack. It help to block the beta-adrenergic substances such as adrenalin.
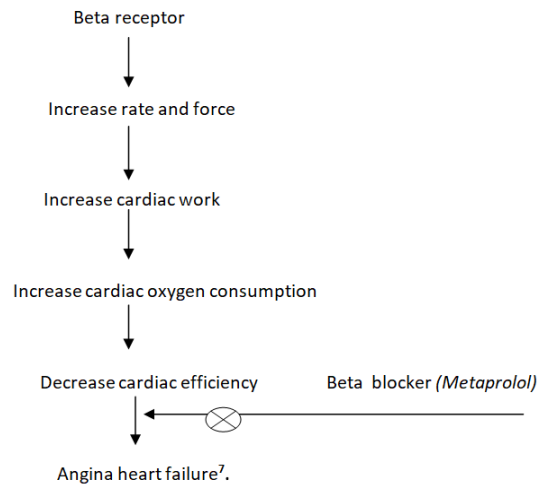
Heart failure: Heart **failure** chronic condition . It is clinical syndrome caused by structural and functional effect of myocardial.the heart can not pump blood (systolic and diastolic) adequately.

Stages of heart failure

Stages 1 : This is the stage when patients to get heart failure. Patients are suffer from High blood pressure, diabetes, coronary artery disease and metabolic syndrome.

Stages 2: Structural heart disease but without signs or symptoms of heart failure.

Stages 3: Structure heart disease with prior or current symptoms

Stage 4: Advanced heart failure.

Risk factor

- Coronary artery diseas
- High blood pressure
- Cardiac arrest
- Age
- Gender

- Ethnicity
- Diabetes
- Obesity

Agents used to treat heart failure

- ACE inhibitor
- Calcium channels blocker

ACE inhibitor: ACE is stand by angiotensin convertage enzyme. It is mainly used to reduced the level of high blood pressure and also used in the treatment of cardiac disease[8].
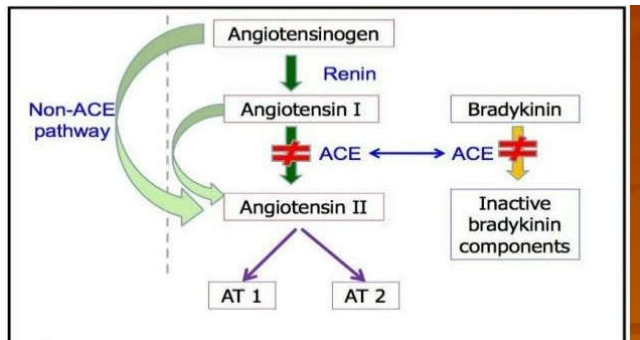
Calcium channel blocker: Calcium channel blocker are used for relaxation of blood vessels by increasing the supply of blood to oxygen in heart.

- Amlodipin
- Deltiazem
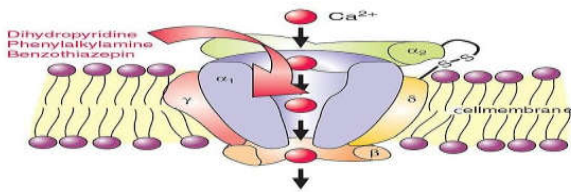
Artrial fabrilation: Atrial fabrilation arrythemia is modern practice, with an estimated prevalence of 1.5 to 2%. The prevalence of arterial fabrilation is expected to double in the next decades, progressing with age and increasingly becoming a global medical challenges.

Stages of arterial fabriltion

Stage 1. Paroxysmal: It is usually initiated by rapid electrical firing from pulmonary veins. It is usually start from 7 days.

Stages 2. Persistent atrial fibrillation: Electrical impulses can originate in the pulmonary veins and areas in the left atrium. It requires medication and or electrical cardioversion to achieve normal sinus rhythm and it episode longer than 7 days.

Stages 3. Permanent atrial fibrillation: No longer respondent to medication and cardiovascular.

Risk factor

- Older than 60 year of age
- Diabetes
- High blood pressure

- Coronary artery disease
- Pericardial inflammation
- Excessive alchohol or stimulant use.
- Sleep apnea
- Thyroide disease[9].

Agents are used to treats artrial fabrilation

- Sodium channel blocker
- Potassium channel blocker

Sodium channel blocker: A class of drug that inhibt the sodium influx through cell membranes. Also Maintaining a specific membrane potential is a critical to various cellular functions in a variety of mammalian cells. Sodium channel slow the amplitude of initial rapid depolarization, reduce cell excitability, and reduce conduction velocity.

Mode of action
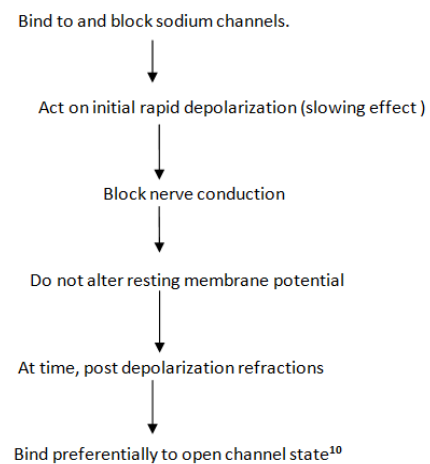
- **Potassium channel blocker:** It is the agents which interferes with conduction through potassium channels.

Mode of action:
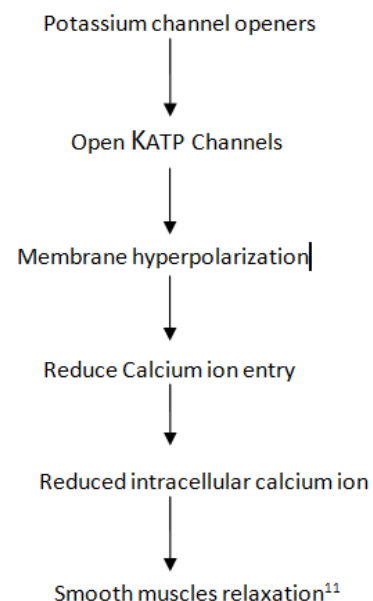
Valvular heart disease: It is a common heart disease that account 10 to 20% of all cardiac disease. Valvular disorder is important aid the management of patient with valvular disease.

Risk factor

- Shortness of breath
- Swelling of your ankles and feet
- Fainting
- Irregular heart beat
- Fatigue

Stages of valvular disease

Stage	Definition	Description
A	At risk	Risk factors for development of VHD
B	Progressive	Progressive VHD (mild-moderate and no symptoms)
C	Asymptomatic severe	Asymptomatic patients who have criteria for severe VHD
D	Symptomatic severe	Have developed symptoms as a result of VHD

Coronary Artery Stent
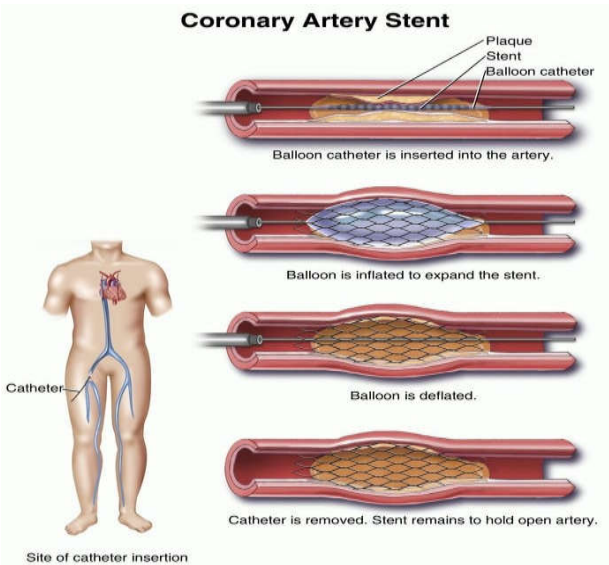
Technique are used to treat valvular disease: (Ballon and Stent): A catheter with a small ballon tip and also stent made up of metal. A balloon catheter, placed over guide wire which are put in the stent in to your narrowed coronary artery which help to open the narrow vein flowing the blood rapidly through this process reduce the risk of valvular disease[12].

Conclusion

Heart is a mascular organ which pumps blood through the blood vessels of the circulatory system. But many time cholestrol deposition lead to severe effect in human heart. During heart attack, symptoms are found typically last 30 minutes and are not relieved by rest or oral medication. Coronary heart disease, heart failure and atrial fabrilation have following agents to treat heart disease but valvular disease of heart can be treated up with stents and balloons. Russia has highest heart disease.

The average age of heart disease between 65 but many heart attacks occur before age 45. Smokers, high blood pressure, high cholesterol deposition may lead extra chance are suffering heart disease.

Acknowledgement

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