



## Therapies in the Treatment of Heart Failure

Mamatha Dereddy\*

### Abstract

Heart failure is a condition where your heart doesn't pump blood as well as it should. The heart failure generally starts with the buildup of the plaque and their by thickening the artery walls mainly the heart's pumping chamber the left ventricle. In the ancient days there is no treatment for heart failure as a reason it lead to many deaths but now in the present medical advancements many new treatments are available to improve your quality of life. According to the Society for Cardiovascular Angiography and Interventions bypass surgery and percutaneous balloon angioplasty were the only treatments available for the treatment of many heart diseases. Later then stents played a major role.

### Keywords

Angiotensin-converting enzyme; Bypass surgery; Heart failure.

### Introduction

The heart failure is the main cause of mortality and morbidity in many countries [1]. Many researches have been done on this particular topic to improve the patient's quality of life. There are many drugs available to treat the heart failure on a long term basis. The main treatment is the use of vasodilators, loop diuretics and inotropic agents in combination with the beta blockers and the Angiotensin converting enzyme inhibitors.

### Inotropic agents

These classes of drugs through various mechanisms increase the levels of cAMP in cardiomyocytes. They are the treatment option in patients with low ejection volume. The use of these drugs did not show any change in the mortality and morbidity rate.

### Vasodilators

The main motto of the vasodilators is to reduce the systemic vascular resistance. These are used in combination with the diuretics.

These are mainly used in patients with HF accompanied by high blood pressure [2].

### Diuretics

These diuretics inhibit the  $\text{Na}^+/\text{2Cl}^-/\text{K}^+$  co-transporter of the ascending loop of Henle thereby one third of the sodium is reabsorbed. This causes decreased sodium and chloride reabsorption and increased diuresis [3].

Along with the drugs there are also some surgical procedures available like implants, heart pumps, and surgeries

**Implantable cardiovascular defibrillator:** When this device sense any change in the heart rhythm it gives an electric shock to the heart

**Cardiac resynchronization therapy:** This is a tiny pacemaker like implantable device which helps your heart beat in a regular rhythm

**Total artificial heart:** This technique is used in patients with severe heart failure who are in need of transplantation. It is implanted into the heart and it replaces the lower chambers of the heart that can no longer work for pumping of the blood effectively. The research is still going on this phase.

There are also many tests available at a friendly cost to diagnose heart failure earlier before it becomes severe

### Conclusion

Irrespective of the treatment given the patient should monitor their food habits by reducing the salt intake and adding some physical exercise to your daily routine. All these changes can have a big impact on your quality of life with heart failure.

### References

1. Braunwald E (2013) Research advances in heart failure: a compendium. Circ Res. 113: 633-645.
2. Benjamin EJ, Blaha MJ, Chiuve SE (2017) American heart association statistics committee and stroke statistics subcommittee, 2017. heart disease and stroke statistics-2017 update: a report from the american heart association. Circulation. 135: e146-e603.
3. Brater DC (1998) Diuretic therapy. N Engl J Med. 339: 387-395.

**Citation:** Dereddy M (2020) Therapies in the Treatment of Heart Failure. Int J Cardiovasc Res 9:5.

\*Corresponding author: Dr. Mamatha Dereddy, Doctor of Pharmacy, Sri Indu Institute of Pharmacy, Hyderabad, India, E-mail: Mamathareddy.dereddy@gmail.com.

Received: August 10, 2020 Accepted: August 24, 2020 Published: August 31, 2020

### Author Affiliations

Top

Department of Pharmacy, Sri Indu Institute of Pharmacy, Hyderabad, India



All articles published in International Journal of Cardiovascular Research are the property of SciTechnol, and is protected by copyright laws. Copyright © 2020, SciTechnol, All Rights Reserved.