

Stem Cells Therapy in Cardiac Disorders Like Myocardial Infarction and Heart Failure Could be Great Future After Covid 19 Era

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At the global medical platform, all know about major cause of death in heart attack, failure leads to cardiac arrest, arrhythmias or death. After myocardial infarction usually left ventricular changes occurs due to improper functioning affected area or infarcted cardiac ventricular muscle resulting into low ventricular ejection fraction. Stem cells transplantation is a current hot topic in cardiovascular field during or after covid 19 era. Stem cells are mesenchymal form as a adult prototypic in nature with master peculiarity for self-regeneration or new healthy cells formation towards various tissues distribution according to primary site. It could be helpful in healing and aging the regenerating manor with maintain homeostasis as an endogenous role.

According to previous animals data mesenchymal cells are capable to endogenous graft and differentiate into cardiovascular cells. Resulting in cardiac repair with new healthy formation of cardiomyocytes and cardiovascular cells to prevent and improve ventricular remodelling and decrease scar size leading as improvement of ventricular function or it may be helpful to cardiac repair as well [1].

We can understand about stem cells therapy term as Allogenic; from one to another person in same species. Autogenic; from own tissue. Myoblast like immature muscle cells are able to regenerate functioning cardiac cells and Transgenic; use from another species [2].

On the basis of cardiac catheter induced interventional procedure we can introduce the stem cells which are collected by bone marrow aspiration sample. We usually insert the mesenchymal stem cells through endocardium to myocardium or intracoronary with the help of cardiac catheter. Once stem cells accumulate into myocardium in infarct area, will start to regenerate new healthy cells like cardiomyocytes and vascular cells which perform coronary flow to myocardium and reverse the ventricular remodelling and reduce the myocardial infarct size and finally improve ventricular function, prevent arrhythmias and heart failure.

It may be reduce mortality or improve heart failure class or symptoms leads to finding good quality of life. It could be reduce the burden of medicinal intake, further frequent hospitalization and cardiac device or transplantation in future. It may be useful to reduce in cardiovascular fear and economy which is very important to us.

Bibliography

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