

Special Supplement on **CARDIOLOGY**

Editorial

Heart Care in 21st Century

Before 1970, cardiologists used to be physicians with special interest in the treatment of heart diseases. In 50 years time, today, cardiology is an independent speciality with multiple divisions like noninvasive, invasive/interventional cardiology, electrophysiology, heart failure as speciality, paediatric cardiology and molecular cardiology etc.

It is indeed American Heart Association (AHA), National Heart Lung and Blood Institute (NHLBI), Framingham Heart Study, whose enormous contribution led to the development of today's cardiology.

Establishment of coronary care unit, thrombolytic therapy in acute myocardial infarction, β -blockers, angiotensin converting enzyme inhibitors, pacemakers, defibrillators have significantly improved survival of heart patients. Cardiovascular imaging of heart and great vessels, echocardiography, nuclear scan, CT scan, MRI, angiography, have improved the precision of understanding of cardiovascular disease pathology. Similarly angioplasty, stents, cardiac resynchronization therapy (CRT), aspirin, newer antiplatelets and anticoagulant agents, have saved many lives.

Evidence based treatment of hypertension, dyslipidaemia, diabetes mellitus, clearly reduced the incidence of stroke, myocardial infarction and heart failure hospitalizations. Cardiac surgery for congenital and acquired heart diseases, artificial heart valves, coronary artery bypass surgery (CABG), off pump heart surgery, port access surgery, heart transplantation, and more recently robotic vascular interventions, have elevated care of cardiac patients to a magnificent level. The advances in development of ventricular assist device (VAD) have been phenomenal. Catheter based valve implantation of aortic valve and mitral valve repair show remarkable success in cardiology. The Human Genome project has shown that 80% of cardiovascular deaths are due to 20 diseases. Genetic causes have been established for Wolff-Parkinson-White (WPW) syndrome, Long QT syndrome, hypertrophic cardiomyopathy and familial hypercholesterolaemia. Gene therapy is getting established. Heart failure management today is achieving a new altitude.

Nevertheless today cardiovascular care is going through a double barrel challenge. On one side, there is ceaseless, ongoing development of technologies to diagnose and alleviate heart ailments and on the other side, there is prohibitive cost to implement these facilities to our patients. Heart care economics is a formidable impediment in application of these advancements for heart disease treatment.

During the forthcoming 50 years, perhaps from the divergence of cardiovascular specialists, physicians and surgeons contributing untiringly towards the wellness of human heart will enter into an emerging epoch of convergence where physicians, surgeons, interventionists, image specialists, electrophysiologists robot experts will be together in a common suite, working in harmony.

Human heart will find a life which would perhaps be just short of existent immortal.



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