EDITORIAL

THE CURRENT STATUS OF CARDIAC SURGERY FOR CONGENITAL HEART DISEASE IN INDIA

The fact that we still come across in the 90's cases of Elisenmenger's syndrome (severe pulmonary hypertension with right to left shunt), only shows the inadequacies of our medical fraternity in effectively dealing with congenital heart disease.

Almost thirty years after Dr. Gopinath had opened the vistas of open heart surgery to the people of India, physicians (and laymen alike) are still pondering over the question: *To Operate or Not to Operate?* Whereas the adult cardiologists imported courage from abroad and got their rheumatic valves and coronaries operated, the pediatric cardiologists are still waiting for the results of cardiac surgery to improve! My question to them would probably be "Unless you let us operate, how do we improve?".

In addition to this, there is a general tendency among cardiac surgeons to wander away from pediatric cardiac surgery. The possible reasons are:

(*i*) Adult cardiac surgery is easier and less demanding on the innovative skills of the surgeon.

(*ii*) Besides manpower, the input into pediatric surgery (in the form of biomedical technology, nursing care and medicines) is certainly higher than adult patients undergoing cardiac surgery. Therefore, most private hospitals take *logistic* attitudes and indirectly discourage pediatric cardiac surgery by giving more importance to adult cardiac surgery!

(*iii*) Whether it is a case of simple ventricular septal defect (VSD) or a complex operation for transposition, the parents are not briefed about the outcome by the pediatrician. Whereas the risk involved in repair of a simple VSD is in the region of 2%, the parents are hesitant as they have heard from some others that the risk is 50%!

(*iv*) Somehow, congenital heart disease is less common in the affluent sections of our society and even if it does occur, the parents still prefer to take their children abroad.

(*v*) The 'Either/Or' philosophy. In contrast to management of pediatric cases abroad, we in India still are carrying on with our earlier philosophy of 'Either/Or'!. In other words, the child will be treated *either* by the Physician *or* the Surgeon! This should be replaced by the 'And' philosophy so that the two or more doctors involved are complimentary to each other and of overall benefit to the patient.

(*vi*) It is only too well known to the pediatricians that infants cannot be treated as small adults (unlike some older children who can be treated so). This has led to the development of a wholly new aspect of medicine and is popularly called *'Small Body Technology (SBT)'*. It is more likely that pediatricians would be more well versed with SBT than cardiac surgeons predominantly involved in adult work. Success or failure of a complicated cardiac

operation depends not only on the operative events which include meticulous attention to surgical detail and perfusion but also on the post operative events that can occur in the intensive care unit. Hitherto the surgeon has been managing the child as it has been labelled as 'His Baby'! Lack of time because of his involvement in other surgeries has taken him more away from 'His Baby' who now becomes an orphan. Thus the 'Either/Or' philosophy has now graduated into a 'Neither/Nor philosophy'!

(*vii*) The social importance of pediatric cardiac surgery is much less as compared to coronary artery surgery and surgeons who prefer the limelight to the midnight oil tend to sway away from pediatric surgery for obvious reasons.

Other than these 7 points listed above, there are many others which would be contributing to the reason, why *infant cardiac surgery in India is still in its infancy.*

Magnitude of the Problem

There has so far been no survey from India reporting the exact incidence of congenital heart disease. Going by figures quoted in western literature it is expected that 8 out of 1000 live births could have congenital heart disease(1). Most of the infants born alive with congenital defects will have anomalies that do not represent a threat to life atleast during infancy(2). About 2.6 per 1000 live births will have critical disease and will not survive beyond the first year of life(3). However, now with modern cardiac surgery, 60% of these infants born with critical disease can survive beyond the first year of life. Most of the survivors have malformations that can be corrected by currently available surgical techniques. Thus, out of 8 babies of the 1000 born with congenital heart disease, 7 can be expected to survive. Projecting these western figures, on our Indian population (with possibly a higher incidence of consanguinous marriages) for a population of 800 million, there would be approximately 5.6 million people who would have been born with congenital heart disease and who could have been benefitted by palliative/corrective cardiac surgery. At an average, cardiac surgery would cost about Rs. 30,000/- per case. So the total cost of treating all these patients would be something astounding.

Certainly, this phenomenal amount will not be entertained by our Government and the amount of free cardiac surgery done for congenital heart disease in all the Government institutions put together would be at best "a drop in the ocean". The centres that are currently engaged in aggressive pediatric cardiac surgery are just a handful, to name a few: (*i*) All India Institute of Medical Sciences, New Delhi (Government), (*ii*) Southern Railway Headquarters (Government), (*iii*) KEM Hospital, Bombay (Government), (*iv*) Madras Medical Mission, Madras (Private), and (*v*) Batra Hospital, Delhi (Private). The reason for other centres which are actively involved in adults cardiac surgery not getting so involved in pediatric cardiac surgery has been detailed earlier.

Extremely Complex Congenital Heart Disease–Is it Logistic to Treat?

On many informal discussions with administrators and planners of health-care in our country, it is felt that the Government would not be interested in funding expensive pediatric cardiac surgical programmes. As a matter of fact, they look upon complex congenital heart disease as a

method of natural selection in near exploding population and accept to offer a token service in highly subsidised institutions mainly for the academic advancements.

Thus, for all practical purposes, congenital heart disease in India is hardly attended to. Considering that 60% of these 5.6 million births could lead normal life after corrective cardiac surgery and contribute to the productivity of the Nation, it is a shame that only a few thousands have been tackled during the 30 years of cardiac surgery in India.

Possible Remedy

The following aspects may contribute to alleviating the current situation.

(*i*) Mass education and increasing awareness in the general population with convincing confidence that timely cardiac surgery would promise almost normal longevity to the child, thus affected by congenital heart disease.

(*ii*) Governmental agencies should provide necessary financial assistance to parents of children suffering with heart disease to either partially or completely defray the expenses that would be incurred in subjecting them to cardiac surgery.

(*iii*) Medical insurance of expecting mothers to insure the child to be born, so that, in case the child is affected by congenital heart disease, the expenses incurred are automatically met by the insurance company.

(*iv*) Customs duty and other taxes may be forgiven for equipment imported for the specific purpose of cardiac surgery and Intensive Care for infants and children.

(*v*) Encouraging of pediatricians and surgeons to compliment each other rather than to replace each other. In other words, to promote the 'And' philosophy in preference to the 'Either/Or' philosophy.

(*vi*) To organise seminars in small body technology to educate the doctors, nurses, perfusionists and other personnel involved in pediatric cardiac surgery.

(*vii*) To jointly plan staged operations when necessary and sell the idea to the parents.

If these aforesaid remedial measures are undertaken by the pediatricians of this country, may be, we will never abandon left to right shunt to develop Eisenmenger's syndrome and may be, we will not let increasing doses of beta-blockers push cyanotic children into intractable right heart failure.

Perhaps, the Indian Academy of Pediatrics should nurture this poor orphan 'Pediatric Cardiac Surgery' and give hope to disappointed parents, surgeons and physicians.

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