

Editorial

The State of Cardiac Surgery in Pakistan Today

Cardiac surgery has made significant advances in Pakistan since its humble beginning in Karachi and Pindi over two decades ago. There are at present in Pakistan twelve cardiac surgeons and eight hospitals where cardiac surgery of some sort is being done at least intermittently. However, only the government run institutions in Karachi, Pindi and Lahore are doing regular work in some volume.

While a detailed survey is impossible, what I narrate is based on first hand information, published data and personal communication. Surgery for all three major areas of disease, i.e., rheumatic heart disease, congenital heart disease and coronary heart disease is being undertaken today.

Rheumatic heart disease surgery mainly involves a large number of valvotomies usually of the mitral valve and in the remaining cases a valve replacement or repair is done. As this is the most common type of surgery done in Pakistan, there has developed a significant expertise in this area in our surgical teams. The mortality of valvular surgery in Pakistan is quite comparable to results in good centers of the world. However, as elsewhere in the third world, those patients who have prosthetic valves implanted and need life long anticoagulation are doomed to clot or bleed if they live in rural areas. In many international forums it has been established that this type of surgery is a disaster in the third world countries. We do not have any followup statistics and as such do not know what happens to our patients but it cannot be too different from the South American experience. Valvuloplasties, done both by balloons and valve reconstructive surgery where anticoagulation is not needed seems to be the answer. As both of these procedures are rarely done in Pakistan, their impact is yet to be felt. We have still to find out if valve surgery which we can do reasonably well is having any impact on this disease in Pakistan.

Surgery for simple congenital lesions like Patent Ductus Arteriosus, Coarctation of Aorta and the like is well done. Surgery for lesions requiring open heart surgery is a mixed bowl. Simple lesions like ASD, VSD can be repaired at reasonable risk. The mortality for lesions like Tetralogy of Fallot or complex lesions like Transposition of the Great Arteries still carries an unacceptably large mortality. Total correction of lesions in neonates cannot be addressed to at all in Pakistan and we are still in the era of pulmonary artery banding or shunting which is quite appropriate for us even though primitive. In short, surgery for simple congenital lesions is done at acceptable risk while complex lesions either cannot be done or are done at unacceptably high risk. As in the case of rheumatic heart disease, no long term followup is available for us to assess the impact of surgery on this category of disease and residual pathology in the long run.

In the area of coronary bypass surgery there is a lot of pressure to increase the small volume being done. This type of surgery was started only a few years ago. The total experience is still small. The large initial morbidity and mortality is much less now than before, but, is still higher than in the advanced centers of the world. What we can now tell our patient is that his chances of being alive after this operation are good. But, to put it tongue-in-cheek, he was already alive before surgery. We have to prove that the grafts we have put in are open and functioning in the short and long run and that no new muscle damage has been done because of the surgery. Only then can we justify the expense and risk of this surgery to our patients. Unfortunately, as is the usual story, we do not have the data to tell us the answers to these questions. These facts coupled with the increased efficacy of medical treatment (and the emergence of balloon angioplasty which is hardly done in Pakistan) make it difficult to submit a patient to bypass surgery except as a humanitarian gesture to relieve incessant anginal pains where medical treatment fails. We even do not have adequate followup data to tell us if we relieve anginal pains effectively or not long term wise.

To sum it up, our cardiac surgical teams deserve congratulations for the improvement in their surgical skills and results and need our encouragement so that one day they may come up to internationally acceptable results. It is our cardiologists and cardiology departments and institutes that have failed miserably in gathering data necessary to provide the surgical teams with a feed back and short and long term followup and as such are the cause of stagnation and less than ideal performance of the surgical teams. Until this situation is corrected we will remain in the backwaters of cardiology and cardiac surgery and continue to spend crores of this poor country's money without even knowing whether any good is being done or not!

I hope we are all upto this big challenge!

Editor.