Sociopsychological Factors in Cardiac Surgery

D. Mohan, N. Gopinath, S. Gupta

Surgical management for some of the cardiac conditions including heart transplantation has gained a momentum in the world during the past 25 years. But in India such facilities are seen mainly in medical teaching institutions. Since the surgical procedure with the heart has morbidity and mortality risk, it has an impact on the emotional life of the individuals undergoing it. Hence it had become rather customary to assess pre- and postoperatively the psychiatric and psychological consequences [1, 2, 4–9, 12, 15, 16] most probably in an effort to prove the efficacy of a given technique. As against the vast literature outside India on the psychiatric and psychological aspects of cardiovascular surgery, the authors are aware of only two studies [13, 14] in India which elicited psychiatric and psychological aspects of surgery for mitral stenosis. None of these studies demonstrated postoperative personality changes in patients. The behavioral concomitants and consequences of cardiac surgery have not been explored in India either by cardiac surgeons or by behavioral scientists. To explore these aspects a study was initiated jointly with the Department of Cardio-thoracic Surgery [10]. The study aims to assess the personality and behavioral changes following open-heart surgery and does not consider the neuropsychological deficits since it has already been suggested [6, 9, 15] that successful cardiac surgery restores severely reduced cerebral blood flow and cerebral hypoxia and brings about subsequent improvement in the cognitive status of individuals so affected.

Cardiac surgery, in fact, is a very complex psychological stimulus and its emotional ramifications extend far beyond the surgical event itself. The study of personality changes following open-heart surgery in Indian context may be of relevance cross culturally.

From the ongoing study on personality changes following open-heart surgery, careful selection was carried out of 11 cases in whom Cattell and Eber's 16 P.F. questionnaire (as adopted by Kapoor in Hindi) was administered immediately before the open-heart surgery and of 11 cases in whom the testing was done 3 years postoperatively. These two groups, even though small, were matched on a one-to-one basis for the variables such as age, sex, education, marital status, and also in relation to the number of stress events occurring during 1 year prior to the onset of cardiac illness. Surprisingly, the intergroup differences in regard to all the 16 P.F. test variables were statistically insignificant and the scores yielded on the variables were generally depressed or low on both occasions.

The observation as to why a positive change in the personality functioning of the patients following open-heart surgery was not seen can be viewed from a number of
angles. In order to arrive at some conclusion, optimally the personality retesting should have been done on the same series as is taken up preoperatively or, ideally, one more session of personality testing was needed on each patient of the series well before a decision was made regarding the surgical management of the cardiac patients. Cardiac surgery evokes various kinds of reactions in different persons depending upon their premorbid personality status.

As cultural factors have a significant influence on the personality make-up of individuals, it would be worthwhile noting that Indian culture provides a high threshold of toleration of ‘dependence’ [11] and, therefore, the personality outgrowth in patients following open-heart surgery did not appear to have taken place even 3 years postoperatively. Since the heart is considered to be the locus of feeling and an attribute of character, people in our series regarded a cardiac patient as one subjected to chronic psychological stress both in the remote or recent past. Close relatives of the patient, usually the parents, sibs, wife, or children perceive open-heart surgery as the technique of management of his heart condition with a fear or incapacity or death of the patient. In most of the families extreme changes are then seen. Circumstances leading to the patient’s disease are analysed to discover possible causes in his immediate environment. In many instances, parent-son, brother-brother/sister or wife-husband relationships are reported to have been repaired. Often these are interpreted in the context of the past life and the kind of life the individual led (Karma theory) and are seen as punishments for past deeds or sins.

It is not usually the intrafamilial changes that take place which lead to sinking of differences, the patient and doctor or the patient’s family and the doctor interaction is also affected. In most cases, it is not always the clinician who may impart instructions to the patient or to his relatives but it is the patient or his relatives who ask for certain “do’s” and “do not’s” so that the patient remains free from the sickness for the rest of his life. By virtue of this, the clinician in the Indian setting is considered to be the one who fights a battle with Yamaraj (God of Death) and brings back life to the patient. His instructions are carried out literally. The family members of the patient render a great help to the doctor in restoring adequacy and confidence in the patient. They are able to shower love, affection, shelter, protection, security, warmth etc. and appear to be in no hurry to reduce his dependency needs which, in fact, are accentuated at times, leading to undue delay in recovery. To cite an example, a 64-year-old father of a male patient, K.L., 40 years of age now, High School educated, diagnosed as M.V.D., and who also underwent open-heart surgery on 4-8-1976, was able to arrange a light job for him (to write the sales) at a coal depot at Rewari (Haryana) and decided for himself to vend cloth in order to supplement the earnings of the family. The father was a retired school teacher at the time of the operation. He had accompanied the patient from a distance of about 150 km when the patient visited us for a check up and asserted that he would continue to support him till he breathed his last. When asked how things would go after his death, he replied, “God will help him”.

Social ‘dependence’ in the Western cultures, especially in the U.S.A., is considered a defect to be removed (Paren and Saul, cited by 11). ‘A common judgement is that for a person to be dependent is less good than for him to be independent: in fact, to call some one dependent in his personal relationships is a condition to be avoided and left behind’ (Bowlby, cited by 11). Dependence has an aura of disapproval or dis-