

EDITORIAL

MANAGEMENT OF MULTI-VESSEL CORONARY ARTERY DISEASE, COURAGE, SYNTAX AND FREEDOM TRIALS

There is no doubt that atherosclerosis is a pathological process afflicting the coronary arteries in a large number of human beings across the globe, resulting in preventable premature disability and death. In addition to the human side of the loss of a family member in the primetime of his life and its resultant effects on the upbringing of the multiple off-springs, the premature loss of a trained working person has tremendous cumulative effect on the national and global economy. The coherent application of preventive and curative measures is bringing results in the developed countries with obvious salutary effect in the marked decline of mortality and morbidity of this condition. However, on the other hand the developing countries in Asia, Africa and other parts of the world, where majority of the world population lives are facing a phenomenal increase of the problem.

Preventive measures of life style modifications including smoking cessation, control of abnormal lipid levels, especially LDL cholesterol, maintaining optimal levels of blood pressure with prolonged treatment has been a major factor in keeping the reversal of tide of coronary onslaught.

Therapeutic measures for established multi-vessel coronary artery disease include medical management, PCI and coronary bypass graft surgery are being practiced widely in the developing as well as developed countries, including Pakistan, where these facilities are being provided in all major cities, from Peshawar to Karachi. Numerous studies comparing these modalities are being published; however the ease of PCI in practice and the idea of dilating a stenosed vessel have such a strong appeal to the mind of the patients and their family which goes beyond the realm of scientific evidence. In time of mass awareness and easy access to information by the untrained, unwarymind, choice priority in the process of selection therapy needs counseling by a group of experts, rather than a selected cardiologists with major interests in a sub-specialty. Primary PCI in the setting of STEMI is the proven choice, nonetheless in other settings; studies differ and question the choice of PCI of physician and patient. The Courage Trial has established the role of optimal medical therapy (OMT) in multi-vessel coronary artery disease in patients with stable angina pectoris. If PCI or CABG is offered well in time to those whose clinical condition deteriorates during the course of therapy. Thus a greater responsibility is placed on the patient, as well as the physician, monitoring clinical and repeated investigations to remain in the safety cordon of the optimal medical therapy.

The syntax trial comparing PCI to CABG defined the low-risk and intermediate risk of patients to PCI and high-risk to CABG. The general understanding from the cardiac surgeons is being reflected in the high risk patient groups of coronary bypass surgery. The role of off-pump bypass surgery better than on-pump bypass surgery in this setting is of great satisfaction.

Coronary artery disease in patients with diabetes mellitus offer special challenges. These patients have some degree of renal impairment generalized atherosclerosis (including carotid disease) as well as the problem of complex lipid disorder glycemic control and associated other endocrine disorders. These patients always complain of delayed wound-healing, and are thus highly averse to the idea of skin injury. Convincing them for CABG will take a committed physician to explain the pros and cons of coronary bypass surgery to these patients in view of the findings of Freedom Trial. Undoubtedly, the Freedom Trial has given support to the notion that CABG is a better option for patients with multi-vessel coronary artery disease and diabetes mellitus. Nevertheless, there seems to be an ethical dilemma of reviewing the data with the patient because of the slightly higher, but insignificant increase in CV death, 3 more cardiovascular deaths, 10 more strokes, but 5 less deaths from any cause, 20 less MIs in the first 30 days post surgery. The overall impact of the trial strategy would be obvious after the guidelines. However, at this time patients undergoing PCI in diabetes should have a thorough checkup not only for coronary artery disease status, but other systems review with the aim to prevent the increase in mortality and morbidity after 2 years of the procedures.

In developing countries where most of the patients are self-financed due to lack of government funding or health insurance, diabetic patients with multivessel coronary artery disease may be offered CABG as a treatment of choice.

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