stantly stand the test of critical comparison with new advances in medicinal therapy. At present, the administration of propranolol in combination with isosorbid dinitrate appears to be attended by a much lower mortality, significantly higher incidence of benefit, and greater freedom from complications than is observed following surgical revascularization. Further comparative studies will determine whether or not such advantages are maintained with the passage of years. For the present, in view of these considerations, the selection of patients for operative intervention should be attended by far greater circumspection than has prevailed in the past.

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Therapeutic Procedures for Angina Pectoris

The value of any therapeutic procedure must be determined by comparison of the risk and the objectives attained. The objectives in coronary arterial disease are relief of symptoms and prevention of myocardial infarction, congestive heart failure and death. Complete evaluation of the long term effect of any medical treatment of coronary disease has not been done, but it is common knowledge that some patients have pain which is difficult to control by medical measures and that complications and death do occur. There is some risk associated with the use of certain drugs.

Obviously if the mortality of operations for coronary artery disease is high, the therapeutic objectives are thwarted. The optimal mortality must be the lowest reported mortality in any large series. Otherwise, the risk is influenced by selection of patients, technical limitations and experience of the surgeon and the quality of postoperative care. The operative mortality in our institution is 4.5 percent for single implants and 6.2 percent for the double implant procedure. Most of the patients having double implants have "triple vessel disease." Mortality for saphenous vein grafts of the right coronary artery is 4.5 percent in the entire series of 121 patients.

If the cardiologist, surgeon and patient are willing to accept mortality figures similar to those stated, decision relative to operation must be based upon the objectives likely to be attained. It will take years to evaluate the experience relative to prophylaxis of myocardial infarction, congestive heart failure and death. No decision regarding symptomatic benefit should be made in the early postoperative period. The psychotherapeutic effect of surgical treatment dissipates in time. Symptomatic response should be estimated prior to the performance of objective studies done postoperatively. If the correlation between these two is poor, surgical treatment has no place in the management of coronary disease. Some of our results are summarized elsewhere in this issue and the difficulty in selection of a controlled series is emphasized. With suitable candidates for operation, symptomatic results should be good.

Current medical therapy has not been shown specifically to result in increased blood flow to the myocardium. Adequate revascularization operations do increase coronary blood flow. Whether either form of treatment prevents serious or fatal complications is not known, but surgical therapy seems more likely to do so. Until the factors responsible for the initiation and progression of the disease are better understood, there will be no ideal treatment. The present question is not whether any patient should have operative treatment, but which patients are more safely treated in that manner and which are more suitable for drug therapy.

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