IT CAN BE SAID that simple and accurate means for the recognition of ischemic heart disease are not yet available. This statement is particularly applicable to the group often referred to as the covert, or coronary-prone group.\(^1\)\(^2\) Into this category belong patients in whom the risk factors of coronary artery disease, as described in the Framingham or similar studies, are present but who have not developed any overt symptoms of the disease. Opinions are divided on the relative importance of these risk factors. There is general agreement on the significance of blood cholesterol levels, whereas the role played by height of the blood pressure, by personality factors, the levels of triglycerides or free fatty acids, the caloric intake, or by body build is not yet properly defined. Genetic factors certainly are important. According to the Framingham study, the lipid indices in blood furnish no more additional information than plasma cholesterol alone. Electrocardiographic changes alone without the presence of a history of coronary artery disease are also often misleading, and their uncritical interpretation either leads to undue anxiety or to false confidence.

It has been sufficiently established that a false-positive diagnosis of coronary artery dis-

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From the Department of Medicine, Wayne State University School of Medicine, Detroit, Michigan.

most objective method. Yet, despite its low mortality rate of 0.29 per cent (Sones), the method can only be carried out in centers by an experienced team.

It is for these reasons that the attack has to be pressed to open new technics in the recognition of coronary artery disease. This is particularly urgent in the coronary-prone group of patients, and in those individuals in whom the history and physical findings leave both the physician and the patient doubtful and anxious.

In this Symposium, four different approaches to this problem will be discussed. Sheffield, Holt, and Reeves describe the electrocardiographic results obtained with an exercise test, based on graded heart rates. This standardization results in fewer false-negative and fewer false-positive findings. The paper by Ross and Friesinger is a quantitative approach to the measurement of coronary flow in man, based on clearance of radioactive material by the heart, injected directly into a coronary artery through a catheter. Although this technic has so far not proved useful in the separation of normal individuals from those with ischemic heart disease at rest, the method has been of value in evaluating sudden changes of the coronary circulation induced by exercise or by drugs. The work of Eddleman represents a summary of the accomplishments of the Birmingham group by the recording of kineto-cardiographic changes in ischemic heart disease. He describes definitive alterations in the recorded tracings in individuals with coronary disease. Cohen and his co-workers, using rubidium-84, a positron emitter, have now been able to quantitate the measurement of coronary flow. They have demonstrated that it may be possible to recognize coronary artery disease by the altered response of the coronary circulation to nitroglycerin.

The papers describe newly developed methods concerned with the understanding of coronary circulation in man and with a utilization of knowledge in the recognition of coronary artery disease in man. These two aims, one physiologic and the other diagnostic, are closely related. New clinical diagnostic procedures will in all likelihood originate from physiologic studies applied to man.

References
Symposium: Advances in Detection of Coronary Artery Disease: Introduction: The Recognition of Coronary Artery Disease

RICHARD J. BÍNG

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