An Internist's View on the Indication for Surgical Treatment of Ischemic Heart Diseases

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BEFORE specifying my answer as to the indication for surgical treatment of coronary heart diseases, I would like to make a comment about the general aspect of the coronary heart diseases. The World Health Organization classified the ischemic heart diseases into 4 groups; i.e., angina of effort, myocardial infarction (old and recent), intermediate type and ischemic heart diseases without pain. The accurate diagnosis or recognition of the condition is certainly the first step for adequate treatment. One may feel easy to make a correct diagnosis in typical cases of angina of effort or myocardial infarction, but a physician sometimes encounters difficulty in the diagnosis of the intermediate type. I would like to say a few words here about the intermediate type, since analyses of this type would afford a

clue to the general knowledge of the various mechanisms of anginal pain, a functional disorder.

About the intermediate type many nomenclatures were presented by many authors. The condition called by these nomenclatures may be classified, in my opinion, into 4 categories by their underlying mechanisms. The Premonitory syndrome (*Sampson et al.*, 1937), Preliminary pain (*Fail*, 1937), Prodromal syndrome in myocardial infarction (*Mounsey*, 1951), Preinfarction angina (*Resnik*, 1962) and Preinfarction syndrome (*Vakil*, 1964) may be collectively called impending myocardial infarction. The coronary failure (*Blumgart et al.*, 1941), Variant form (*Prinzmetal et al.*, 1964) and Coronary insufficiency (*Logue*, 1966) represent the condition in

TABLE I INCIDENCE OF ANGINA PECTORIS CLASSIFIED IN TERMS OF UNDERLYING DISEASES

		angina of effort	angina at rest	intermediate type
coronary sclerosis		1 (4)	3 (1)	2
myocardial infarction	pre-	5	1	4
	post-	1 (3)	0 (2)	3
hypertensive- arteriosclerotic		2 (2)	1 (1)	0
miscellaneous		1	0	1
sum		10 (9)	5 (4)	10

When more than 2 types of angina were present in one and the same patient, entry was made in the most severe type of angina.
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which the myocardial ischemia is more extensive and continues for a prolonged period. The Angina pectoris during decubitus (*Soloff*, 1950, *Andrus*, 1960), Postural angina (*Smith*, 1963) and Atypical angina (*Daley*, 1960) are associated with congestive heart failure; it suggests that the congestive state or low cardiac output may trigger an anginal attack. The Linked angina (*Smith*, 1962), Verkettungsangina (*Mainzer*, 1958), Angina pectoris vasomotorica (*Nothnagel*, 1867; *Edens*, 1931; *Maekawa*, 1962) and probably Chest pain in association with pulmonary hypertension (*Viar et al.*, 1952) represent a group of conditions in which neurogenic factors play a role in the induction of anginal attack. Such underlying mechanisms as above mentioned should be first eliminated or taken into consideration before starting the treatment of angina. For instance, digitalis, would be the drug of the first-choice for angina pectoris during decubitus, and the sedatives for control of neurogenic factors.

Of next importance in the treatment of angina is to recognize the anginal attack in relation to the basic disease. Some of the cases with anginal attack that I have recently experienced are classified in terms of underlying diseases in Table I.

Briefly speaking, the majority of our patients with angina are those with hypertensive-arterio-

sclerotic heart diseases, and it could be said that the angina patients are mainly composed of those patients with post- or preinfarction angina. Among 17 cases with myocardial infarction, 10 cases were hypertensive or had history of hypertension. It may be possible to prevent anginal attack in the majority of our cases by thoroughly treating their hypertension with effective and potent antihypertensive drugs such as we have at our disposal. Among cases with myocardial infarction there were 7 cases who had never complained of any anginal pain. It is an another important task of physicians to make a correct prediction beforehand in such patients.

About the indication for surgical treatment of coronary heart diseases there is no definite difference in opinion between other speakers and myself. However, I would like to emphasize the importance of treating the coronary heart diseases with eyes on both etiology and underlying mechanism. If there is any condition which would accelerate myocardial ischemic changes and anginal attacks, these should be eliminated as possible as possible. Only then, one may consider cardiac surgery for the treatment of the coronary heart diseases. The coronary angiography is certainly necessary in this case, as other speakers said.