

Progression of coronary disease 5 to 7 years after aortocoronary bypass surgery

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Of 400 patients enrolled in a serial angiographic evaluation of aortocoronary bypass surgery prior to July 1972, 90 patients had a 5- to 7-year follow-up study. Changes in the native coronary circulation were evaluated an average of 70 months (range, 54 to 88 months) after preoperative coronary arteriography.

The patients had 168 saphenous vein grafts; 133 (80%) were patent and 35 (20%) were occluded. Five patients had two grafts on the left anterior descending system. Nongrafted arteries (107 in Group 1) were compared to arteries with patent grafts (128 in Group 2), and to arteries with occluded grafts (35 in Group 3). The coronary lesions were classified as 50% or less narrowing, 51% to 75% narrowing, 76% to 90% narrowing, 91% to 99% narrowing and occlusion. Progression was considered significant when preexisting stenosis increased one or more grade or a new lesion of more than 50% narrowing developed. Progression of 50% or less narrowing was 16% in Group 1 ($p < 0.01$), 40% in Group 2, and 48% in Group 3. For 51% to 99% narrowing, progression was as follows: 51% to 75% narrowing; 36% (NS), 37% and 40% respectively; 76% to 90% narrowing: 60% (NS), 75% and 56% respectively; 91% to 99% narrow-

ing; 50% in Group 1 (NS) and 100% in Group 2. New lesions of more than 50% narrowing occurred in 10 arteries in Group 1 (NS), in nine arteries in Group 2, and in six arteries in Group 3. Whereas narrowing of 50% or less and new lesions were distributed more or less equally, 51% to 99% narrowing were typically proximal or above the graft: 14/25, 68/70,

and 10/11 respectively, and frequently progressed to occlusion: 18/28, 65/70, and 9/11 respectively.

We conclude that progression of atherosclerosis in nongrafted coronary arteries is important. After 5 years, there is no difference in the severity of disease in the proximal segments of grafted and nongrafted coronary arteries.