Cardiac Evaluation of Long-Distance Runners

To the Editor:

The timely report of Parker and associates entitled "The Noninvasive Cardiac Evaluation of Long-Distance Runners" (Chest 73:376-381, 1978) shows that in the absence of clinical heart disease, athletes trained for endurance may have changes on the electrocardiogram resembling those of myocardial infarction. The recent growth of marathon running as a hobby has attracted many rehabilitated cardiac patients into the sport.

I have covered the 42-km distance with 110 "graduates" of formal cardiac rehabilitation programs in the United States and Canada. These included 37 persons with prior myocardial infarction and 16 with bypass grafts. The most severe disease on the coronary arteriograms was reported as four-vessel narrowing of 100 percent, 90 percent, 90 percent, and 95 percent (Fig 1). The most severe ST-segment depression on exercise testing was 6 mm (Fig 2).

When such "cardiac athletes" are evaluated, it is important that they be compared to other athletes trained for endurance and not to the sedentary population. In this way the expected results of training for endurance will not be mistaken for myocardial damage.

Thomas J. Bassler, M.D.
Centinela Hospital, Inglewood, Calif

Figure 1. Diagram of angiogram from 64-year-old male cigar-smoker. Severe inappropriate bradycardia was present on exercise testing. Five years later, he has completed several 42-km marathons. He has stopped smoking and jogs daily.

Figure 2. Electrocardiogram of 56-year-old man, showing 6-mm ST-segment depression one minute after exercise. He had reached pulse rate of 170 beats per minute at 5 mph. Mean tension-time index equaled 25,000. Sixteen months later, he ran 34 miles in nine hours and 25 minutes.

To the Editor:

Bassler's letter refers to athletes training for endurance who have cardiac disease, which is an extension of what we discussed in our article (Chest 73:376-381, 1978). He presents evidence that vigorous exercise is possible in patients with severe coronary arterial disease. Since athletes trained for endurance who have no known cardiac disease may have marked electrocardiographic alterations, as we and others have shown, it would not be surprising that such changes could also take place in cardiac patients undergoing exercise for endurance. I agree with Bassler's conclusion that such changes should be interpreted in light of what is known about alterations which may take place in healthy athletes trained for endurance.

Brent M. Parker, M.D., Professor of Medicine
University of Missouri, Columbia

Drug-Induced Lupus Erythematosus

To the Editor:

In their article in the June 1978 issue of Chest, Kaplan et al. stated that a normal level of complement in the serum is a consistent feature associated with drug-induced lupus erythematosus and can be used to differentiate the drug-induced form of the syndrome.

It should be pointed out that although serum levels of complement are usually normal in the procainamide-induced syndrome, this does not necessarily have to be the case. Utsinger et al. reported the findings in five patients with the procainamide-associated syndrome who also had hypocom-