

CHAGASIC MYOCARDIOPATHY

To the Editor: We were most interested in the article by Mabry et al. (N Engl J Med 285:662-663, 1971) concerning the left ventricular aneurysm of unknown etiology. We should like to suggest a possible etiology, which is not usually considered in a differential diagnosis in the United States, of American trypanosomiasis (Chagas's disease) caused by *Trypanosoma cruzi*. It is known that this trypanosome exists as a zoonosis in the eastern United States,¹ and there is good indirect evidence for its occurrence in humans in the southeast.²

In Panama (unpublished data), the presence of a saccular apical ventricular aneurysm, particularly on the left, is pathognomonic of chronic chagasic myocardiopathy. Microscopical examination typically reveals a substantial loss of cardiac musculature, which is replaced by a very thin layer of fibrous tissue. This is particularly evident with a trichrome stain. There is complete absence of the parasite, in contrast to the acute form of the disease.

As in this case, our patients usually require hospitalization within one to two years after the onset of symptoms because of identical arrhythmias and heart failure. Although all our patients in whom ventricular aneurysms have developed have been in the fourth decade of life or older, the aneurysms have been observed in teen-agers in Brazil and other areas of Latin America (according to a personal communication from F. Köcherle, of São Paulo Medical School).

It would be interesting to know the serologic results from testing this patient for Chagas's disease and others in whom ventricular aneurysms of unknown etiology develop in the United States.

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1. Walton BC, Bauman PM, Diamond LS, et al: The isolation and identification of *Trypanosoma cruzi* from racoons in Maryland. Am J Trop Med Hyg 7:603-610, 1958
2. Farrar WE, Kagan IG, Everton FD, et al: Serologic evidence of human infections with *Trypanosoma cruzi* in Georgia. Am J Hyg 78:166-172, 1963

The above letter was referred to the authors of the article in question, one of whom offers the following reply:

To the Editor: The letter of Drs. Johnson, Edgcomb and Kinney concerning the possible etiology of the left ventricular aneurysm in the patient discussed in our recent article was intriguing. Like most cardiologists in various institutions around the country, we have been looking for a possible etiology for unusual left ventricular aneurysms and also primary myocardial disease for a number of years. Dr. Farrar's work in this field is well known to us, and although he found two positive reactions using complement-fixation titers from *Trypanosoma cruzi* in 28 patients studied with primary myocardial disease, this prevalence was not borne out in some later work, which has not been published to date. Dr. Farrar informs me that he subsequently studied 4000 more patients after publishing his original data, and 50 more patients who had the so-called syndrome of primary myocardial disease. There were only two positive titers in the 4000 additional patients studied and no positive titers in the 50 with primary myocardial disease. We believe that this is an extremely rare disease in the southeastern part of the United States.

To settle the issue, a blood sample has been drawn from the patient in question and has been sent to the Communicable Disease Center in Atlanta, Georgia, for complement-fixation titers for *T. cruzi*.

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