Naming of the Waves in the ECG With a Brief Account of Their Genesis

To the Editor:

We want to compliment Dr Hurst for his excellent article, “Naming of the Waves in the ECG With a Brief Account of Their Genesis,” but we would like to make a few comments.

In “Proceedings of the Symposium on Developments in Electrocardiography, 1927 to 1977,” G.E. Burch from Tulane University School of Medicine in New Orleans wrote this about the history of precordial leads in electrocardiography: “The complexes or deflections in these leads were denoted by letters P, Q, R, S, and T by Einthoven. These letters were chosen since vitamins A and B had been discovered and identified by the first letters of the alphabet. Einthoven used letters from the latter part of the alphabet in order to leave enough letters in the first part for new and yet undiscovered vitamins.” Dr Burch does not mention where he received this information, but because most vitamins were discovered much later than the ECG, the theory brought forward by Dr Hurst stating that Einthoven was thinking about Descartes when he used the letter P to designate a point on a curve seems much more credible.

Hurst et al deserve a good bit of credit for their fine work regarding the so-called M-cells, but it is important to mention that in 1985, Watanabe et al noticed midmyocardial cells with a long action potential duration when they recorded action potentials from different regions of the guinea pig ventricle to characterize regional differences in wave form configuration and to acquire insight into the generation of the T wave of the ECG.

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Response

I appreciate the nice remarks made by Drs. Bjerregaard and Gussak regarding my article, “Naming of the Waves in the ECG With a Brief Account of Their Genesis.”

I knew George Burch and had great respect for his knowledge. However, I cannot believe, in my wildest imagination, that Einthoven’s naming of the waves in the ECG had anything to do with the letters used to identify the vitamins.

The reason I emphasized the excellent work of Antzelevitch et al was because they named the M cells and presented such a clear view of the genesis of the normal and abnormal U waves.

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