A 60-year-old man suffered from paroxysmal episodes of palpitations, angina, and shortness of breath lasting 5 to 10 minutes. The episodes occurred about twice a month and were not related to physical activity or stress. Resting-, exercise- and Holter-ECG and the clinical examination revealed no abnormalities. A coronary angiogram showed only mild coronary artery disease, with no significant stenosis (Figure, a). To elucidate the cause of the episodes, the patient received a credit card–sized event ECG recorder (Rhythmcard) that was capable of recording and transmitting 1-minute single-lead ECGs. He was instructed to record and transmit an ECG in case of symptoms and to record an additional ECG immediately after each symptomatic episode. The patient’s reference ECG was recorded at rest while he was asymptomatic (Figure, b). After 1 week, while having typical symptoms again, the patient recorded an ECG (Figure, c) with marked ST elevations. In the ECG (Figure, d) recorded 5 minutes after the symptoms terminated, the ST segment was almost normalized.

These findings were highly suggestive of Prinzmetal angina, and the patient was treated with retarded nifedipine 20 mg BID and retarded diltiazem 90 mg BID. During a follow-up of 4 months, the patient was free of symptoms. This case demonstrates that single-lead event ECGs can be of diagnostic value in the work-up of paroxysmal chest pain.

a, Angiograms showing only mild coronary disease. b, Reference ECG. c, ECG recorded during episode of palpitations, angina, and shortness of breath showing marked ST-segment elevation. d, ECG recorded 5 minutes after episode; note that ST segment is almost back to normal.
Prinzmetal Angina Documented by Transtelephonic Electrocardiographic Monitoring
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Circulation. 2001;103:2766
doi: 10.1161/01.CIR.103.22.2766
Circulation is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
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Print ISSN: 0009-7322. Online ISSN: 1524-4539

The online version of this article, along with updated information and services, is located on the World Wide Web at:
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