Wolff-Parkinson-White ECG With False Infarct

David H. Spodick, MD, DSc

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A 49-year-old man with no serious cardiac symptoms or history was evaluated. The ECG shows a Wolff-Parkinson-White (WPW) pattern with the diagnostic delta waves (labeled $\Delta \rightarrow$) at the beginning of the QRS complexes. A fairly frequent accompaniment is that of false abnormal Q waves, which can be misdiagnosed if the upright delta waves are missed. Here, the delta wave vector points anteriorly, leftward, and superiorly. Superiorly is away from the foot electrode (VF), giving the broad false Q waves in leads aVF and III with a smaller Q wave in II. True abnormal Q waves in these leads would be typical of an inferior wall infarction; A however, in the presence of a WPW pattern, "infarct Q waves" should not be diagnosed unless the pattern is reverted because, like WPW, Q waves of any kind represent initial forces. A more difficult problem results in patients with minimal preexcitation in whom delta waves may be less apparent. The absence of normal septal Q waves in leads I and V₆ can be a clue to either WPW or a septal infarct. The false infarct Q waves can occur in any lead, so this example is only one possibility. The patient did not have arrhythmias or syncope and therefore has the "WPW ECG" pattern, not the WPW syndrome, which requires a manifest clinical component.

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