

What if there is a QS complex in V1?

The first thing you want to check is Lead V6. You may also want to glance at Leads V5 and Lead I - the rest of the left lateral leads. A QS deflection in V1 indicates loss of the septal r wave in that lead. The question is: "Has there been a loss of the septal vector (Vector I) or was it simply not registered on the tracing?"

[Some of you may wonder why I omitted Lead aVL. The presence of a septal vector in Lead aVL is not as reassuring - aVL can manifest what *appears* to be a septal q *even during LBBB*. So a "septal q" in aVL doesn't help us a whole lot when there is a QS complex in Lead V1.]

The septal vector - commonly referred to as "vector I" (vector "one") - is the first manifestation of depolarization in the ventricles. It travels from left-to-right and begins in the middle 1/3 of the septum, usually just beyond the midpoint between base and apex.

If there is a QS complex in V1 but the septal vector - in this case, the septal q - is *still present in V6*, then the septal vector is also present in V1. You just can't see it, most likely due to positioning of the heart causing the vector to be perpendicular to the V1 lead. This is generally a benign situation. There are some other factors that can cause this, but they are benign as well.

If the septal vector is *missing from V6 and the other lateral leads*, then it is truly not there. This is more serious. It can indicate an infarction that involves the middle 1/3 of the septum or perhaps a developing delay in the left bundle branch (a *complete* LBBB should be obvious on the ECG). In any case, this represents a much more serious problem.

If you would like to be able to interpret 12-lead ECGs at a more advanced level, visit our website at <https://www.medicusofhouston.com>. The **Advanced ECG Interpretation Boot Camp** is known the world over for its advanced curriculum. This is *NOT* a review course that simply reiterates the information contained in the basic ECG texts and online courses. It is a live, 4-day class. *Classes conducted in Houston, Texas are limited to just 10 participants per class* and classes held outside Houston are limited to 20 participants per class. Each participant can ask questions at any time and receive individual attention. The boot camp also includes *14 hours of active involvement of all participants in the interpretation of complex ECGs during the class while being guided by the instructor*. Again, questions are welcomed at any time. And the instructor is available by phone during the 4-day boot camp each evening until 10 pm if you think of any questions after the class is over for the day.

At Medicus of Houston, you are always a participant and never just an audience!

A Special Note from Jerry W. Jones, MD FACEP

Medicus of Houston will continue to offer classes in Canada and other locations outside the United States so that anyone who wishes to attend may do so freely.

Come join us! We've saved a place just for you. (But it won't last long!)