The authors reply:
To the Editor:

We are aware of the fact that, during tachycardia, the atrial contribution to ventricular filling may not produce a separate “a” peak or wave. However, we disagree with Dr. Levismen’s contention that the mitral E-F slope cannot be measured in echocardiograms in which the “a” wave cannot be clearly delineated. Since the “a” wave on the anterior mitral leaflet begins 0.08 to 0.12 sec after the onset of the P wave on the electrocardiogram, the E-F slope can be measured as the slope of that part of the anterior mitral echo which is inscribed between the E peak and a point 0.08 sec after the onset of the P wave, whether the “a” wave appears thereafter or not. We use the term “E-F slope” to mean the rate of diastolic closure of the anterior mitral leaflet, which should be the same, irrespective of the length (duration) of the segment of it actually measured. Thus, the E-F slope can be ascertained even when the precise location of the E point is uncertain, provided the slope is measured from the E peak to a point no later than 0.08 sec after onset of the P wave.

We measured the E-F slope in our patients in this manner, and suggest that the E-F slope, an important and established parameter in clinical echocardiography, may be assessed by this method in patients who because of tachycardia, arrhythmia, or other reasons, do not show a distinct “a” peak on the anterior mitral echo.

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Reference

A Disagreement over an Echocardiogram

To the Editor:

We would like to commend D’Cruz et al. on their recent informative article, Diagnosis of cardiac tamponade by echocardiography (Circulation 52: 460, 1975), but feel that it brings up a point needing further clarification. A question arises from the statement in the article concerning figures 1 and 2:

The apparently paradoxical movement of the left ventricular posterior wall in figures 1 and 2 (posterior movement instead of anterior during systole) probably is attributable to undue motion or oscillation of the heart as a whole within a large pericardial effusion.

Since posterior systolic motion is the expected motion of the left atrial echo and is an unusual finding for a posterior left ventricular wall echo, we feel that the authors should have identified the A-V junction by showing the origin of the effusion before labeling the echo. This is especially true since they failed to show a scan below the mitral valve leaflets. We assume the authors identified the structure labeled “PWLV” (posterior wall of the left ventricle) as such because of the relatively echo free space posterior to this structure. Other investigators have pointed out that pleural effusions may cause an echo free space behind the left atrium. Even in patients in whom the origin of the pericardial effusion is clearly identified, we have noted a relatively echo free space behind the left atrium (fig. 1).

We feel that paradoxical motion of the posterior left ventricular wall is not established by the echograms shown and should not be accepted as a finding without further clarification in the authors’ patients with tamponade.

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The authors reply:
To the Editor:

Mr. Dickerson et al. question the identity of the structure labeled PWLV (posterior wall of the left ventricle) in our figures 1 and 2, and suggest it may be the posterior left atrial wall. We did indeed confirm the identity of the left ventricular posterior wall echo, and the fluid-filled pericardial space posterior to it, by scanning repeatedly from left atrium to left ventricle and vice versa, as we routinely do in all our echocardiographic examinations. We did not include a figure illustrating this fact because the main topic of our paper was the abnormalities of mitral valve motion in cardiac tamponade. We did not comment at length on abnormal or paradoxical left ventricular posterior wall motion because most echocardiographers are familiar with the frequent occurrence of this finding in patients with large pericardial effusions, since Feigenbaum et al.’s description of it in 1966.

Regarding figure 1 in Dickerson et al.’s letter, we suggest that the echo labeled LAPW (left atrial posterior wall) is too thick to be the
Letter: A disagreement over an echocardiogram.
R E Dickerson, C F Chin and J W Allen

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