jnm/LETTERS TO THE EDITOR

AN ARTIFACT THAT SIMULATES AN INFARCTION ON A POSTERIOR VIEW SPLEEN SCAN

A defect in the upper spleen is frequently seen in a posterior view spleen scan obtained from a patient with no evidence of splenic disease. This defect is often wedge-shaped although a band-shaped defect may also occur (Fig. 1).

The left edge of the liver usually extends to the upper abdomen and superior to the spleen. Therefore, the possibility of an artifact due to a normal anatomical variant should always be considered before making a final interpretation from a spleen scan. The defect-like artifact, a separation between the left liver and the upper spleen, is most often noted in posterior view scans obtained with the patient in a supine position. The liver normally moves more readily than the spleen when there is a change in position; therefore, repeated spleen scans with the patient in an upright position are helpful in differentiating a true splenic defect from a separation between the liver and spleen.

Figure 1 shows two examples of false splenic defects seen on the posterior view spleen scan. When the scan was repeated at the standing position, the

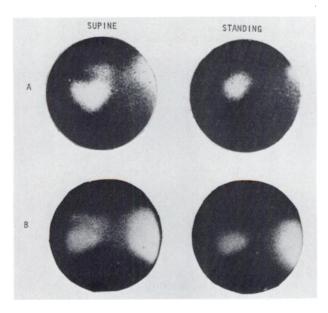


FIG. 1. False-positive spleen scan. Two cases (A and B) in which defects seen on posterior spleen scan disappeared when scan was repeated with patient in standing position.

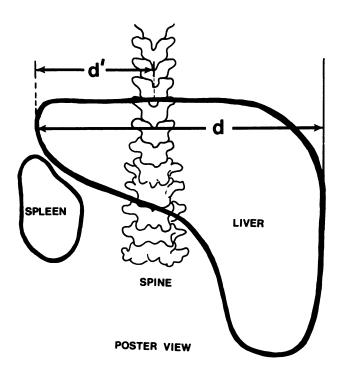


FIG. 2. Positional correlation of liver, spleen, and spine in posterior view.

defect disappeared and the spleen appeared to be smaller. In addition, a confirmation of the left edge of the liver by measuring either the horizontal length of the liver (Fig. 2d) or the distance from the spine to the left liver edge (Fig. 2d') on both the anterior and posterior view scans often helps in determining the correct interpretation of the posterior view spleen scan.

A posterior scintiphoto of the spleen shown in a recent case report by Spencer on a splenic infarct (*J Nucl Med* 15: 303-304, 1974) made me wonder if the author had an opportunity to confirm the infarction by a splenic arteriogram and/or by a left lateral view spleen scan.

U. YUN RYO Michael Reese Medical Center Chicago, Illinois

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