Technetium-99m-Sulfur Colloid Identification of a Mediastinal Mass: Case Report

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CASE REPORT

We present a case of an 8-yr-old boy who had a tracheoesophageal fistula repaired shortly after birth. At that time, a right posterior chest mass was noted (Fig. 1). Since he remained asymptomatic and all other studies were negative, he was followed with serial chest x-rays. A question arose as to whether the mass was enlarging out of proportion to the growth of the thorax, and the etiology of the mass was sought.

A liver-spleen scan was performed, which demonstrated liver parenchyma in the area of the mass noted on chest x-ray (Fig. 2). Diaphragmatic herniations (congenital or traumatic) should always be considered whenever mediastinal masses are noted on chest x-ray. In this case, a posterior-

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medial mediastinal mass was noted and the liver-spleen scan confirmed herniation most likely through a congenital tear.

DISCUSSION

While other etiologies such as neurogenic tumor, pulmonary sequestration, and esophageal or bronchial duplication should be considered, radionuclide identification of liver parenchyma in a diaphragmatic eventration or herniation (1-3), if positive, is simple and provides easily accessible information.

REFERENCES

- 1. Hesselink JR, Chung KJ, Peters ME, Crummy AB. Congenital partial eventration of the left diaphragm. AJR 1978;131:417-419.
- 2. Rubinstein ZJ, Solomon A. CT findings in partial eventration of the right diaphragm. J Comput Assist Tomogr 1981;5:719-721.
- 3. Huys J, Troch M. Scintigraphic imaging of an unusual liver displacement. Clin Nucl Med 1985;10:42-43.

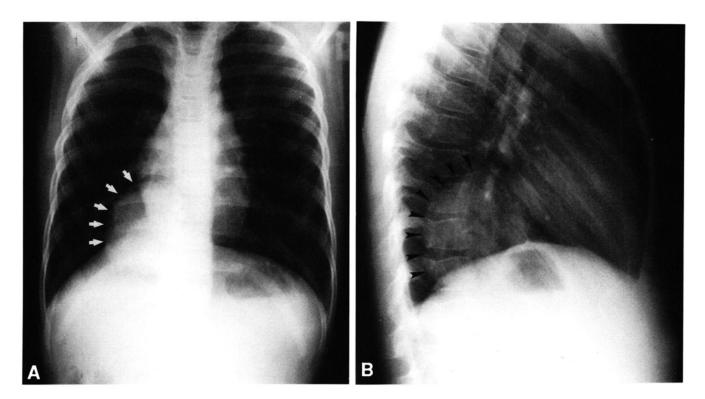


Fig. 1. (A) PA chest x-ray showing a mass (white arrows) in the medial aspect of the right lower chest and (B) right lateral view demonstrating a large posterior mediastinal mass (black arrow).

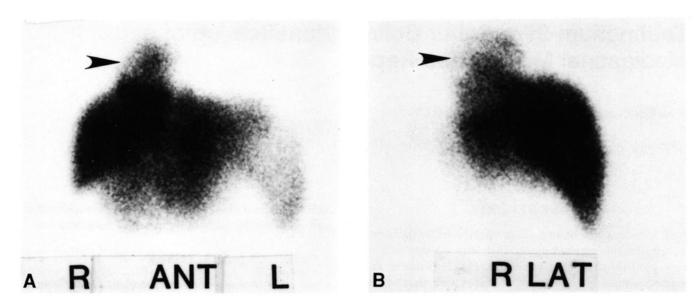


Fig. 2. Liver/spleen scan after i.v. administration of 1.2 mCi ^{99m}Tc-sulfur colloid demonstrates radionuclide uptake in liver parenchyma in anterior image (A) corresponding to the area of the mass noted on PA chest x-ray (black arrow) and (B) right lateral view showing radionuclide uptake superior and posterior to normal liver position (black arrow) in same position as noted on chest x-ray.