Unexpected abnormal extra-cardiac mediastinal accumulation of technetium-99m-tetrofosmin in patient with acute pericarditis

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A 58-year old woman had felt some chest pains on effort for several days. She was admitted to the emergency room with severe and refractory chest pain after exercise. Electrocardiogram showed marked ST-segment elevations in II, III, aV $_F$ and V $_{1-6}$ electrodes. Echocardiogram revealed neither wall motion asynergy in the left ventricle nor abnormal pericardial effusion. Chest X-ray showed normal findings, and mild elevation of C-reactive protein was observed in the blood chemistry data. Her chest pain was relieved by nitroglycerin administration. Emergent technetium-99m-tetrofosmin myocardial imaging did not show any abnormal perfusion in the left ventricle. However, an abnormal extra-cardiac mediastinal accumulation was detected in the planar image. Contrast-enhanced chest CT scanning also demonstrated an inhomogeneously enhanced tumor in the anterior superior mediastinum. The tumor was surgically removed and was finally diagnosed as an invasive thymoma. Technetium-99m-tetrofosmin scintigraphy happened to provide useful information for diagnosing acute pericarditis with mediastinal tumor.

Key words: ^{99m}Tc-tetrofosmin, acute pericarditis, invasive thymoma