

Tl-201 Uptake Due to Median Sternotomy

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Abstract: A 65 year old woman with chest pain and a history of coronary artery by-pass surgery was referred for myocardial perfusion scintigraphy. Raw data and SPECT images showed increased Tl-201 accumulation on the chest wall at the site of sternotomy incision. Awareness of increased thallium-201 accumulation in a recent sternotomy line is important in the interpretation of myocardial perfusion scintigraphy artifacts.

Key Words: sternotomy, Tl-201, artefact

Legends for figures

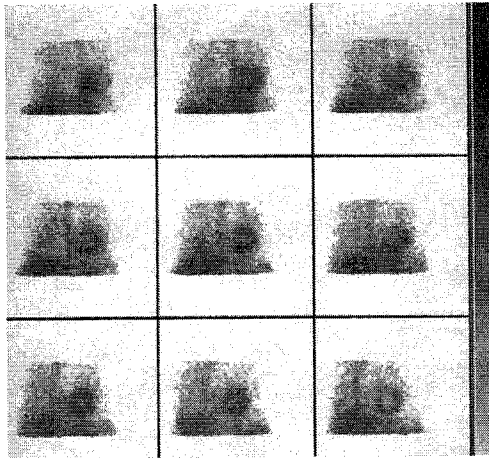


Figure 1-a

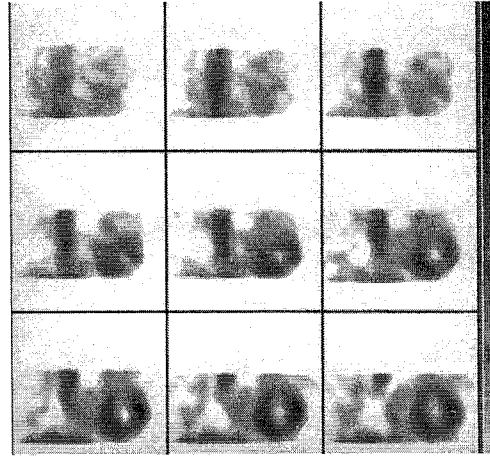


Figure 1-b

Figure 1a. Rest-redistribution Tl-201 myocard perfusion scintigraphy was performed 8 weeks after the surgery. Raw data images of the rest study revealed linear increased activity on the chest wall.

Figure 1b. Short axis images also demonstrated increased thallium accumulation with the same intensity as myocardium. This was attributed to the recent sternotomy incision. Infection was not observed during the 8 months of follow-up period. Infectious complications (mediastinitis, sternal osteomyelitis) were reported in some series to occur in 5% of patients following median

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sternotomy. These complications can be diagnosed by using radionuclide agents such as Tc-99m HMPAO-labelled-leukocytes (1,2), Ga-67 (3,4) and Indium-111-labelled leukocytes (5). Increased sternum activity up to 12 weeks has been reported with bone imaging agents in uncomplicated cases (6).

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