



Left Cardiac Migration of a Lung Fiducial Marker

François Cousin, MD, Laurent Gérard, MD, and Julien Joskin, MD

A 61-year-old man with locally recurrent non-small cell lung cancer of the right upper lobe underwent computed tomography (CT)-guided fiducial marker placement to track respiratory movements during stereotactic radiosurgery. Three 0.8 × 3 mm gold markers (Goldlock; Beampoint AB, Kista, Sweden) were placed in the lung close to the tumor using a 19 gauge × 15 cm coaxial cannula (Cook, Inc, Bloomington, Indiana) (Fig 1). Chest CT scan performed immediately after the procedure showed displacement of 1 of the fiducials into the left atrium by embolization

through a pulmonary vein (Figs 2, 3). Fearing embolization of the fiducial to the systemic circulation, anticoagulation therapy was initiated, and the patient was hospitalized and closely monitored for 48 hours. The patient remained symptom-free. At 1 month after the procedure, follow-up CT showed the fiducial localized in the left ventricle. CT scan performed at 3-year follow-up demonstrated no change in fiducial position in the left ventricle (Fig 4).

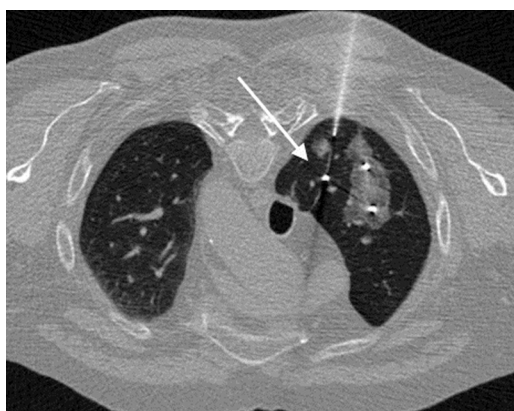


Figure 1. CT image in the prone position obtained during the procedure shows the correct position of the released marker (arrow).

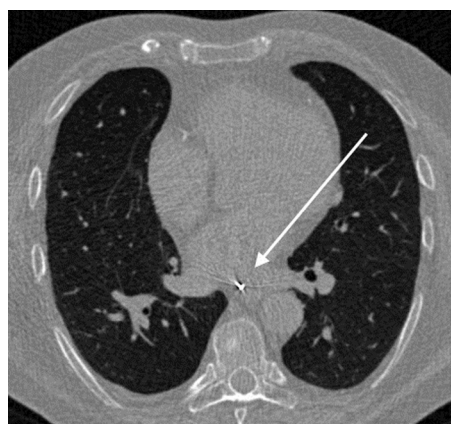


Figure 3. CT image obtained immediately after the procedure shows migration of the marker within the left atrium (arrow).

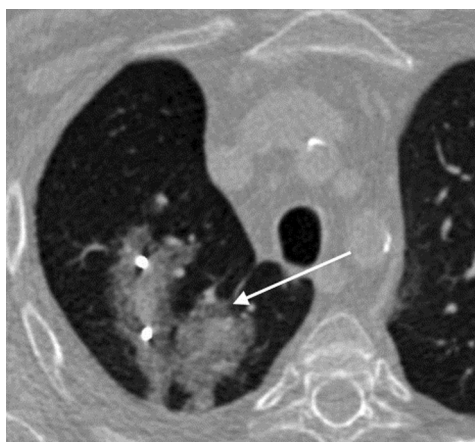


Figure 2. CT image in the supine position obtained immediately after the procedure shows displacement of 1 of the markers (arrow).

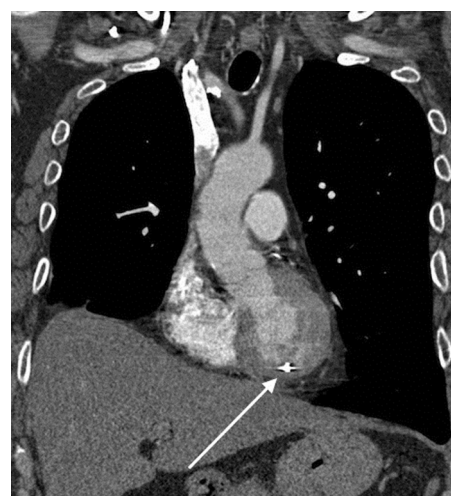


Figure 4. CT image of the chest obtained at 3-year follow-up shows the marker stabilized in the left ventricle (arrow).

From the Departments of Nuclear Medicine and Cancer Imaging (F.C.) and Imaging (L.G.), Centre Hospitalier Universitaire de Liège, Avenue de l'Hôpital 1, Liège 4000, Belgium; and Department of Imaging (J.J.), Centre Hospitalier Emile Mayrisch, Esch-sur-Alzette, Luxembourg. Received June 20, 2018; final revision received August 24, 2018; accepted August 26, 2018. Address correspondence to F.C.; E-mail: fcousin@chuliege.be

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None of the authors have identified a conflict of interest.