

Lipomatous hypertrophy of the atrial septum by 18F-FDG PET/CT

Hipertrofia lipomatosa del septo atrial mediante 18F-FDG PET/CT

Francisco J. García-Gómez*, Pablo A. de la Riva-Pérez, and María de la C. Calvo-Morón

Department of Nuclear Medicine, Virgen Macarena University Hospital, Seville, Spain

Lipomatous hypertrophy of the interatrial septum (LHIS) is a benign but less recognized pathology of the heart caused by unencapsulated mature fat cell infiltrating the myocardial fibers of the interatrial septum, sparing the fossa ovalis. However, in some cases LHIS could cause complications by a severe, symptomatic, and disabling dynamic left ventricular outflow tract obstruction, superior vena cava syndrome, pericardial effusion, supraventricular arrhythmias or sudden death. Its diagnosis is usually incidental, even being misdiagnosed. LHIS has a prevalence of 2.2% while appearing in

approximately 1% of autopsies. The etiology is still unknown, but seems the presence of fetal brown fat amid the matured fat cells contributes to the 18F-FDG uptake, which is greater than in the subcutaneous fat of the chest wall, because the former is metabolically active. In a prospective study over a 2-year period for cancer screening using 18F-fluorodeoxyglucose PET/CT, LHIS was observed in 11 patients and focal increased radiotracer uptake was showed in nine patients (82%). The uptake (SUV) of LHIS was 1.6-6.1 times greater than the mediastinum blood pool.

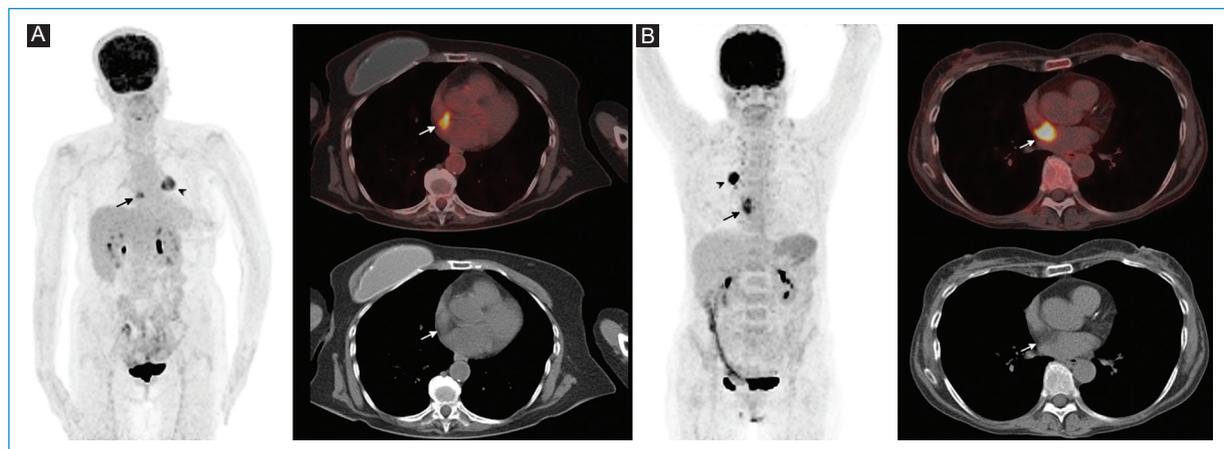


Figure 1. A: MIP and axial slices of 18F-FDG PET-CT performed to 69-year-old female under study because left lung mass (arrow-head). **B:** MIP and axial slices of 18F-FDG PET-CT to 54-year-old female in study because a solitary pulmonary nodule (arrow-head). Both cases revealed LHIS with high metabolic rate (arrows, SUV_{máx}: 6.8 and 8.9, respectively).

***Correspondence:**

Francisco J. García-Gómez
E-mail: javier191185@gmail.com

Date of reception: 17-07-2020
Date of acceptance: 03-06-2021
DOI: 10.24875/RCCAR.M22000190

Available online: 20-12-2022
Rev Colomb Cardiol. 2022;29(Sup 4):72-73
www.rccardiologia.com

0120-5633 / © 2021 Sociedad Colombiana de Cardiología y Cirugía Cardiovascular. Published by Permanyer. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

We report two cases of LHS incidentally diagnosed by PET/CT because oncological history. First was a 69-year-old female under study because left lung mass (Fig.1A, arrow-head). Second was a 54-year-old female in study because a solitary pulmonary nodule (Fig.1B, arrow-head). Both cases revealed LHS with high metabolic rate (arrows, SUV_{máx}: 6.8 and 8.9, respectively). Recognizing LHS is important to avoid an incorrect diagnosis of infectious, inflammatory, neoplasm or such in this cases, pathological mediastinal lymphadenopathies.

Funding

The authors declare that they have not received funding.

Conflicts of interest

The authors declare no conflict of interest.

Ethical responsibilities

Protection of humans and animals. The authors declare that no experiments on humans or animals have been performed for this research.

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data.

Right to privacy and informed consent. The authors have obtained the written informed consent of the patients or subjects mentioned in the article. The corresponding author is in possession of this document.