

Triple Case Phantom Tumor of Lungs

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Abstract : Introduction: The term phantom lung mass describes the ovoid collection of fluid within the interlobular fissure, which initially creates the impression of a mass. The problem of correct differential diagnosis is great, especially in plain radiography. A case is presented with three nodular pulmonary foci, the shape, location, and density of which, as well as the presence of chronic loculated pleural effusions, suggest the presence of multiple phantom tumors of the lung. Purpose: The aim of this paper is to draw the attention of non-experienced and non-specialized physicians to the existence of benign findings that mimic pathological conditions and vice versa. The careful study of a radiological examination and the comparison with previous exams or further control protect against quick wrong conclusions. Methods: A hospitalized patient underwent a non-contrast CT scan of the chest as part of the general control of her situation. Results: Computed tomography revealed pleural effusions, some of them loculated, increased cardiothoracic index, as well as the presence of three nodular foci, one in the left lung and two in the right with a maximum density of up to 18 Hounsfield units and a mean diameter of approximately five centimeters. Two of them are located in the characteristic anatomical position of the major interlobular fissure. The third one is located in the area of the right lower lobe's posterior basal part, and it presents the same characteristics as the previous ones and is likely to be a loculated fluid collection, within an auxiliary interlobular fissure or a cyst, in the context of the patient's more general pleural entrapments and loculations. The differential diagnosis of nodular foci based on their imaging characteristics includes the following: a) rare metastatic foci with low density (liposarcoma, mucous tumors of the digestive or genital system, necrotic metastatic foci, metastatic renal cancer, etc.), b) necrotic multiple primary lung tumor locations (squamous epithelial cancer, etc.), c) hamartomas of the lung, d) fibrotic tumors of the interlobular fissures, e) lipid pneumonia, f) fluid concentrations within the interlobular fissures, g) lipoma of the lung, h) myelolipomas of the lung. Conclusions: The collection of fluid within the interlobular fissure of the lung can give the false impression of a lung mass, particularly on plain chest radiography. In the case of computed tomography, the ability to measure the density of a lesion, combined with the provided high anatomical details of the location and characteristics of the lesion, can lead relatively easily to the correct diagnosis. In cases of doubt or image artifacts, comparison with previous or subsequent examinations can resolve any disagreements, while in rare cases, intravenous contrast may be necessary.

Keywords : phantom mass, chest CT, pleural effusion, cancer

Conference Title : ICOR 2025 : International Conference on Oncology and Radiology

Conference Location : Tokyo, Japan

Conference Dates : May 27-28, 2025