

Case	(559) Nothing is what it seems: the importance of miliary pattern's differential diagnosis.
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CASE PRESENTATION

A 66 year old female presented to the emergency department with pulmonary infection symptoms and constitutional syndrome. As relevant findings in medical history the patient had a melanocytic familiar syndrome and a melanoma excision thirty years ago. Imaging findings:

An anteroposterior chest x-ray performed at the emergency department (figure a) showed a diffuse lung affection by miliary nodules and a right basal opacity.

To determine the miliary pattern etiology, a contrast enhanced chest and abdominal CT was performed (figures b, c and d). Lung window CT images demonstrated a bilateral and diffuse affection of the lung parenchyma by random micronodules confirming the miliary pattern. Overlapped, lower lobes ground glass opacities, consolidations, centrilobular nodules and tree-in-bud were seen, suggesting airway affection.

Pleural surface nodules were also detected, implying lymphatic affection. Two days later, brain-CT evidenced lesions compatible with metastases. The transbronchial biopsy confirmed the diagnosis of a well-defined non mucinous lepidic adenocarcinoma (LA), known before as "non-mucinous bronchioloalveolar carcinoma".

DISCUSSION

The CT findings showed random, centrilobular and perilymphatic nodules, indicating hematologic, air-way and lymphatic affection respectively [1, 2].

The differential diagnosis of miliary pattern (random nodules) is usually classified depending on the fever presence (tuberculosis, fungal, viral or rare bacterial infections) or absence (hystocytosis, sarcoidosis, environmental diseases, fungal infections, metastases or miliary tuberculosis) [1, 2].

Because of the melanoma history, both infectious and metastases were considered. Not only centrilobular (accompanied by tree-in-bud) but also non-clustered or random pleural surface nodules can be in relation with an infection. Nevertheless, random nodules also could mean malignant entities [3].

Accordingly, the findings are compatible with both metastases (melanoma history) and infection (mainly tuberculosis). In spite of the melanocytic syndrome and melanoma history, the anatomopathologic diagnosis confirmed a lepidic adenocarcinoma, which typical features at CT agree with our case. LA is distinguished by its growth along alveolar septa and its tendency for bronchial and lymphatic spread.

The common presentation of LA is diffuse or multifocal consolidation areas with air-bronchograms or cystic spaces. Instead, random and centrilobular multiple small and defined nodules can appear and mimic haematogenous metastases [3].

CONCLUSION

Miliary pattern nodules have a wide differential diagnosis but clinical history could lead as to the most probably options. Besides imaging findings suggest infection, tumoral causes should not be forgotten, keeping in mind options like lepidic adenocarcinoma.



Figures. a) Anteroposterior x-ray shows a right basal opacity (asterisk) and diffuse bilateral micronodular affectation suggestive of miliary pattern (arrows). b) Lung window axial CT evidences pleural surface nodules (black arrows) and nodular interstitial thickening (white arrow). c) Lung window sagittal reconstruction CT: nodular interstitial thickening (arrows) and consolidation in the inferior and middle right lobe (asterisks) are also present, justifying the opacity seen in the x-ray. d) Lung window coronal MIP reconstruction CT: tree-in-bud because of centrilobular nodules (arrows).

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