

## CLINICAL IMAGE

# Lung adenocarcinoma with mixed solid and crazy-paving appearances

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## Abstract

“Crazy paving” on CT images refers to the superimposition of ground-glass opacity and linear pattern resembling irregularly shaped paving stones. Initially, “crazy paving” was described as a pathognomonic sign of alveolar proteinosis. Subsequently, this pattern has been reported in a variety of disorders of the lung. We demonstrated CT images of lung adenocarcinoma demonstrating both solid and crazy-paving appearances.

## KEYWORDS

adenocarcinoma, crazy paving, lung

## 1 | CASE

“Crazy paving” refers to the superimposition of ground-glass opacity and linear pattern on computed tomography (CT) images. “Crazy paving” was initially pathognomonic for alveolar proteinosis. Lung adenocarcinoma demonstrating both solid and crazy-paving appearances on CT is a rare occurrence.

A 69-year-old female non-smoker presented with prolonged cough, hemoptysis, and constitutional symptoms. The initial CT thorax revealed a heterogeneous mass in the right lower lobe with surrounding “crazy-paving” appearance (Figure 1a and 1b). CT-guided biopsy revealed invasive, moderately differentiated lung adenocarcinoma (eGFR positive). She also developed

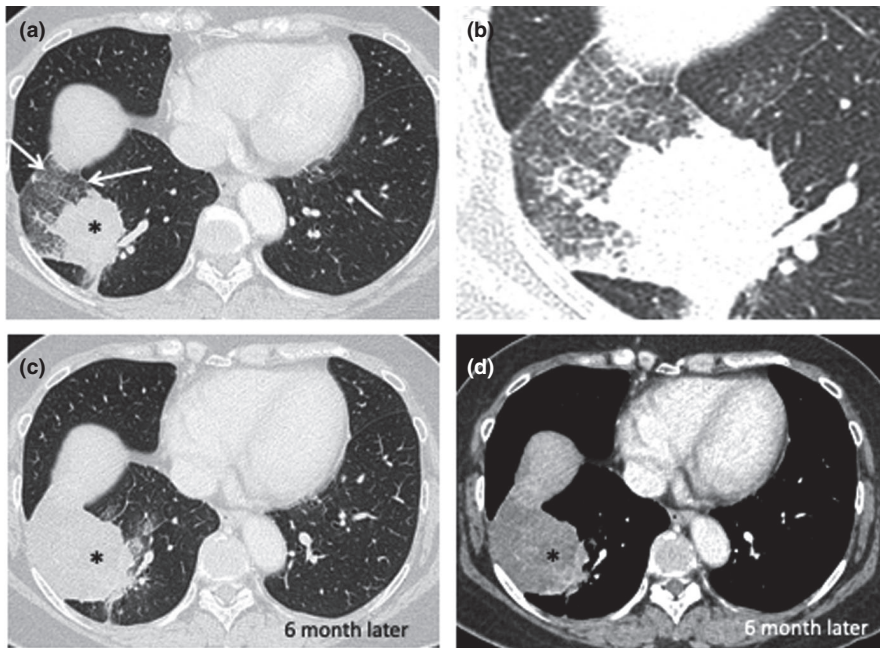
right humeral pathological fracture. Some improvement was shown with Gefitinib, but progressed 6 months later. Repeat CT scan showed that the area of crazy paving was completely replaced by solid tumor, confirming that the “crazy paving” was tumor infiltration (Figure 1c and 1d).

Lung carcinoma usually appears as nodule (solid or subsolid) or mass on CT, rarely appears as ground-glass opacity or consolidation.<sup>1</sup> Lung carcinoma with crazy paving as appeared in the Computed tomography is uncommon despite its recognized existence, and is usually caused by adenocarcinoma.

The solid component likely represents an invasive portion of the neoplasm, whereas the peripheral “crazy paving” may represent areas of lepidic growth.

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**FIGURE 1** Selected thoracic CT images on axial view showing primary lung adenocarcinoma with both solid (asterisks) and “crazy paving” (white arrow) appearances (A & B). B is a close-up view of A. The area of “crazy paving” is completely replaced by solid mass (C & D) while maintaining the same demarcation confirming that the “crazy paving” is indeed tumor infiltration

### CONFLICTS OF INTEREST

All authors declare no conflicts of interest.

### AUTHOR CONTRIBUTIONS

All authors contributed to the article.

### CONSENT

Patient's consent has been signed and collected in accordance with the journal's patient consent policy.

### DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

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