

## Thymic IgG4-related disease presenting as a calcified mediastinal mass

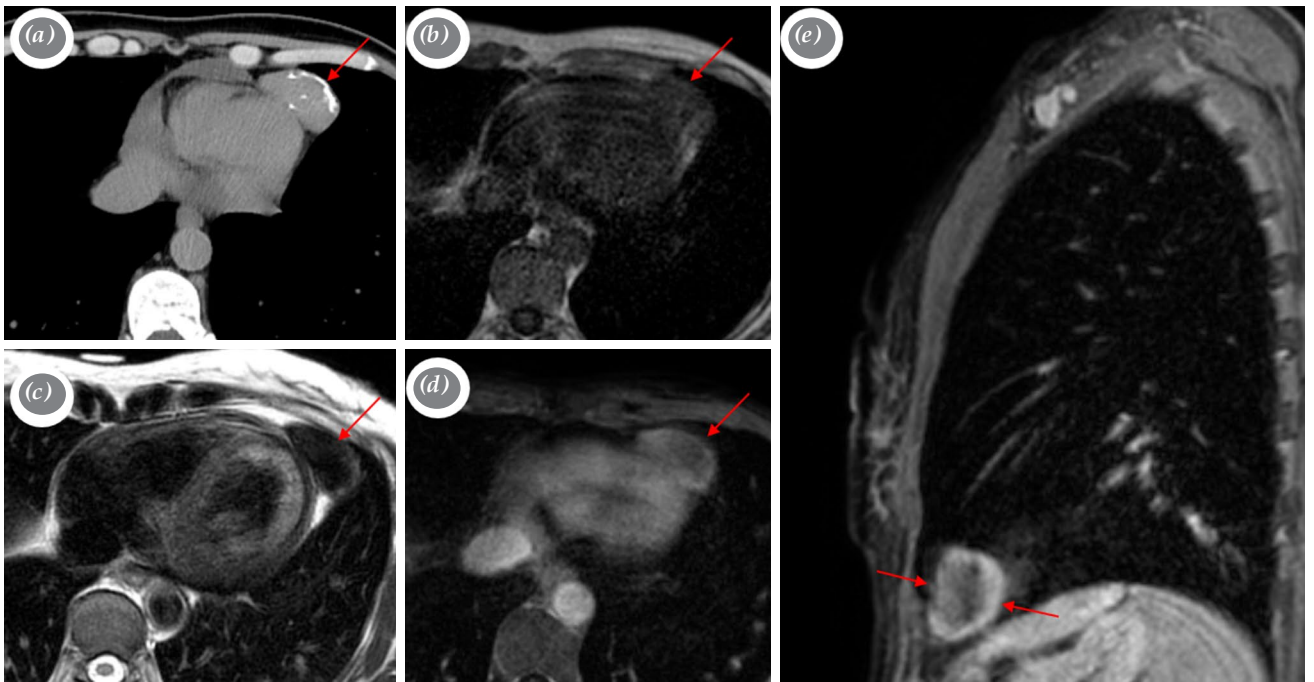
*Kalsifiye mediastinal kitle olarak ortaya çıkan timik IgG4 ilişkili hastalık*

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A 55-year-old female patient with recurrent urinary tract infections and gross hematuria underwent an abdominal computed tomography (CT), which revealed a well-defined 4×2 cm mass in the left cardiophrenic angle, with no other significant findings. A follow-up chest CT confirmed a well-defined, calcified left cardiophrenic angle mass. Magnetic

resonance imaging (MRI) was performed for further characterization, and the mass showed diffuse hypointensity on both T1- and T2-weighted images without diffusion restriction on diffusion-weighted imaging. Dynamic contrast-enhanced imaging demonstrated mild, heterogeneous enhancement of the mass (Figure 1). Minimal invasive surgical resection



**Figure 1.** (a) Axial chest CT image shows a well-defined, calcified left cardiophrenic angle mass (arrow). Axial T1-weighted (b) and T2-weighted (c) MRI show hypointense left cardiophrenic angle mass (arrows). Contrast-enhanced axial (d) and sagittal (e) T1-weighted MRI demonstrate mild and heterogeneous enhancement of the mass (arrows).

CT: Computed tomography; MRI: Magnetic resonance imaging.

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was performed, and histopathological analysis confirmed the diagnosis of thymic involvement of IgG4-related disease (IgG4-RD). After the diagnosis, a thorough laboratory evaluation was performed to assess potential systemic involvement, including tests for serum IgG4 levels, autoimmune markers, and inflammatory markers. The patient's serum IgG4 level was elevated at 168 mg/dL, surpassing the normal limit of 135 mg/dL, supporting the diagnosis of IgG4-related disease. Additionally, a positron emission tomography (PET)-CT scan was carried out, revealing no evidence of multiorgan or lymph node involvement. These findings suggest a localized presentation of IgG4-related disease. This case underscores the importance of comprehensive laboratory and imaging assessments in IgG4-related disease to evaluate for potential systemic involvement. The patient's six-month follow-up was uneventful. A written informed consent was obtained from patient.

Imaging is crucial in diagnosing IgG4-related disease, particularly in rare cases involving the thymus. In general, CT is the first imaging modality, typically revealing well-defined, calcified masses.<sup>[1]</sup> However, MRI provides superior soft tissue contrast, allowing for a more detailed characterization of thymic involvement. In the present case, MRI demonstrated critical diagnostic features, such as diffuse hypointensity on T2-weighted images and peripheral enhancement following gadolinium injection.<sup>[1,2]</sup> The ability of imaging techniques to differentiate

IgG4-RD from other anterior mediastinal tumors, such as thymoma and thymic carcinoma, is critical for guiding treatment and avoiding unnecessary radical surgery.<sup>[1-3]</sup>

**Data Sharing Statement:** The data that support the findings of this study are available from the corresponding author upon reasonable request.

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