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LETTER TO THE EDITOR

# Fibrillarin antibodies in systemic sclerosis

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A 53-year-old Asian female was admitted to the rheumatology clinic with a two-year history of Raynaud's phenomenon, small joint arthralgias, and progressive dyspnea after her general practitioner performed blood tests and noticed a high-titer antinuclear antibody (ANA) with a nucleolar pattern (>1:2560). On physical examination, there were no appreciable synovitis, or scleroderma (CREST) features of her hands. There was subtle skin thickening located over her thorax.

Thoracic computed tomography failed to reveal any interstitial lung disease or pulmonary embolism, and transthoracic echocardiogram revealed no significant valvular abnormalities, but an elevated pulmonary artery systolic pressure (50 mmHg) strongly suggestive of pulmonary hypertension. Right heart catheterization showed no evidence for left heart disease (pulmonary capillary wedge pressure <15 mmHg).

ANA testing revealed a clumpy nucleolar pattern (Figure 1) with initial anti-extractable nuclear antigen (ENA) screen negative for common systemic autoantibodies including anti-Scl70/topoisomerase I. An extended scleroderma line immunoassay confirmed the presence of anti-fibrillarin antibodies (AFA), compatible with the typical clumpy nucleolar pattern (Figure 1).

The patient was diagnosed with systemic sclerosis according to the American College of Rheumatology/European League Against Rheumatism diagnostic criteria,[1] and subclassified as diffuse systemic sclerosis based on the distribution of skin thickening over her thorax. Pulmonary hypertension was thought to be related to systemic sclerosis. She was given conservative management for her symptomology.

The AFAs are found in approximately 4% of scleroderma patients and can appear in both limited and diffuse forms.[2] In pediatric systemic sclerosis, they are found at a similar prevalence of about 7%.[3] They tend to identify younger scleroderma patients (37 *vs.* 43-year-old at disease onset),[4] and are associated with poorer survival compared to AFA-negative systemic sclerosis.[5] Patients with AFA tend to have more extensive skin, muscle, pulmonary, and cardiac complications of systemic sclerosis.[4,6] However, they are negatively correlated with the presence of Scl70/topoisomerase I and centromeric antibodies.[6]

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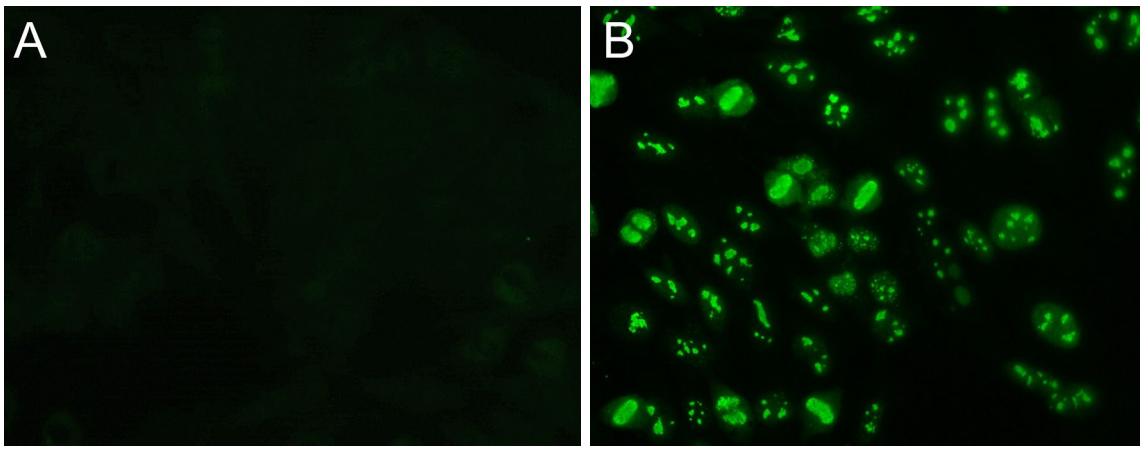


**Figure 1.** Anti-fibrillarin antibodies on HEp-2 substrate. **(a)** Negative (healthy) control serum with no appreciable nuclear staining. **(b)** Distinct and characteristic nucleolar staining of anti-fibrillarin antibodies from the patient. Micrographs are taken at 400× magnification and at dilutions of 1:80.
HEp-2: Human epithelial type 2.

In conclusion, nucleolar ANA patterns, which are common in scleroderma patients,[7] should lead to consideration of this diagnosis and testing for other scleroderma-related autoantibodies that may have important prognostic information. After establishment of positivity, an ANA usually does not need to be repeated, unless a change in clinical picture occurs.[8]

**Patient Consent for Publication:** A written informed consent was obtained from the patient for sharing her case and image.

**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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