

Activity assessment in morphea using color Doppler ultrasound

Wortsman, Ximena

Wortsman, Jacobo

Sazunic, Ivo

Carreño, Laura

Background: Morphea (circumscripted cutaneous scleroderma) can be difficult to assess for lesion activity. Because variable-frequency ultrasound with color Doppler provides details of skin morphology and function, it may help in the categorization of morphea. **Objective:** We sought to evaluate color Doppler ultrasound as a probing tool for assessing activity in morphea lesions.

Methods: Consecutive patients with cutaneous morphea referred by dermatologists were studied with color Doppler ultrasound, and the assessment of lesion activity was compared with histologic findings. Normal skin controls were obtained by performing ultrasound scans of healthy subjects or of unaffected areas of the patients themselves. Measurements included cutaneous layer thickness, relative echogenicity, and blood flow with peak systolic velocity. Ultrasound sensitivity and specificity were determined for each phase of morphea activity and the results correlated with histology.

Results: Fifty-one patients had a t