Significance of color doppler imaging in leprosy

Sir,
I read with great interest the article titled, “Role of ultrasound in evaluation of peripheral nerves” by Lawande et al. in the July–September 2014 issue of the Indian Journal of Radiology and Imaging, Volume 24, Issue 3. The article is informative and intelligently written with excellent depiction of pathologies on ultrasound. However, I would like to make the following contributions.

In the section on “Infective lesions” in the manuscript, the authors mention that there is presence of increased peri-, endoneural vascularity on Doppler in leprosy affected nerves. This, however, is not in accordance with the prevailing body of literature. In the study conducted by Jain et al. and Martinoli et al., none of the patients with leprosy had an increase in neural vascularity. Increased vascularity in peri-, endoneurium, unlike nerve enlargement and architectural distortion, is both a marker of acute neuritis as well as a differentiating factor between leprosy and leprosy-associated lepra reactions (an immunologically mediated inflammatory state during leprosy). The differentiation is critical on account of two reasons; first, increased vascularity suggests lepra reactions, identification of which should prompt immediate antireaction therapy. Failure to institute immediate treatment may result in irreversible nerve damage; sometimes in as less as 24 hours within the onset of lepra reactions. Second, lepra reactions are characterized by recurrence. Hence, ultrasound depiction of neural vascularity may help guide the duration of antireaction therapy. Recurrence is postulated to occur because the treatment is discontinued on clinical betterment without ultrasound evidence of nondetection of vascularity on Doppler. Lepra reactions are potentially treatable, fairly common, and are a cause of significant morbidity.

To conclude, an increased vascularity on Doppler interrogation helps differentiate leprosy from lepra reactions and is a marker of acute neuritis.

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Conflicts of interest
There are no conflicts of interest.
Letters to the Editor

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References