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Dyschromatopsia in Multiple Sclerosis Patients: A Marker of Subclinical Involvement?: Comment

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We read with interest the article by Felgueiras et al (1) regarding apparent color vision deficits detected in patients with multiple sclerosis. The authors used Hardy–Randy–Rittler (HRR) pseudoisochromatic plates to test subjects with and without known visual pathway involvement. They found that missing one or more plates was more likely with a history of optic neuritis, and they also found a correlation between HRR plate deficiencies and reduced peripapillary retinal nerve fiber layer thickness and higher enhanced disability scale scores. They suggest that errors in HRR plate testing, which they categorize as dyschromatopsia, may be used as a marker for disease progression. Of note, the authors did not test contrast sensitivity, nor did they assess color vision with a hue discrimination test such as the Farnsworth D-15 or Farnsworth-Munsell 100 hue tests.

We studied a population of patients with optic neuropathy (demyelinating and otherwise) and assessed correlations between HRR plate identification and contrast sensitivity as well as color discrimination on the D-15 test (2). We found that there was no correlation between errors on HRR plate testing and D-15 scores but detected a moderate correlation between reduced HRR score and lower contrast sensitivity. We believe in that lower HRR scores are more likely to indicate reduced contrast sensitivity rather than a reduction in color identification or discrimination.

The report by Felgueiras et al (1) corroborate the findings of several groups in which reduced contrast sensitivity has been found to be present in a majority of patients with multiple sclerosis, even when there is no visual dysfunction on high-contrast visual acuity testing or a history of optic neuritis (3). We believe that the data presented by Felgueiras et

al supports the use of HRR plates as a quick means of assessing contrast sensitivity in a busy clinical setting and in identifying patients who might benefit from treatments to compensate for their contrast sensitivity deficits.

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