

Choroidal Abnormalities Detected by Near-Infrared Imaging (NIR) in Pediatric Patients With Neurofibromatosis Type 1 (NF1)

We read with great interest the recent article by Parrozzani et al.¹ regarding the choroidal abnormalities related to neurofibromatosis type 1 (NF1) in pediatric patients. The authors conducted a prospective, masked, cross-sectional study looking at feasibility and the diagnostic performance evaluation of NF1-related choroidal abnormalities. This has important clinical implications because the National Institutes of Health (NIH) criteria for NF1^{2,3} do not include choroidal abnormalities for diagnosis of NF1.

This study is of particular interest to us given the possibility of comparing the results with those of our previous study,⁴ which was not discussed in this article. In brief, we compared 78 pediatric patients with NF1 (age range, 2.8-16.4) and 96 healthy control subjects matched for age (age range, 2.0-15.5). Choroidal nodules were observed in 54 patients (69.2%) with NF1. No choroidal abnormalities were seen in the control group. However, we reported 7.8% of the patients with suspected NF1 (<2 criteria defined by NIH for diagnosis of NF1) to have choroidal abnormalities as well. Furthermore, we observed that the frequency of Lisch nodules was 48.7%. Similar results were found by Viola et al.⁵ In fact, they showed that the frequency of choroidal nodules in the pediatric NF1 patients was 71%, higher than the 43% of Lisch nodules detected in the same group.

We agree that choroidal abnormalities are easily assessed in near-infrared imaging (NIR). In our experience choroidal nodules detected by NIR are often less ambiguous to detect than Lisch nodules by slit-lamp examination. In fact, in our study, we observed three subjects with choroidal abnormalities in the healthy group, but these did not present the typical features of the choroidal nodules shown in neurofibromatosis patients. Moreover, optical coherence tomography and specifically NIR are noninvasive, noncontact, quick, and high-resolution methods applicable in children as well.

Overall, the results and the conclusions of Parrozzani et al.¹ are in accordance with our study. Therefore, they contribute to

the evidence that the evaluation of choroidal abnormalities identified by NIR imaging should represent a new diagnostic sign in pediatric patients with NF1.

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