Morphological brain changes and CC size were evaluated using standard MRI sequences. The MRI evaluators were not informed about the results of visual examinations.

**Results** Impaired visual acuity was detected in 9/12 cases with abnormal CC (75%) and in 10% of children with normal CC (p < 0.01). There was a significant correlation between the CC size and Frostig test results (abnormal CC group vs. normal CC group: 91 vs. 80.7 points; p = 0.03 adjusted for history of ROP). Absence of stereoscopic vision was more frequent in the group of abnormal CC (7/12 vs. 2/20; p = 0.03). The frequency of abnormal VEP was similar in the both groups.

**Conclusion** A strong correlation between vision impairment and CC size was observed. This suggests that CC plays important function in integration of visual perception.

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