Purpose: To quantify the improvements in visual performance, for both distance and near tasks, attained by children with bilateral chorioretinal coloboma (CRC) with the use of Low-Vision Aids (LVAs).

Methods: A hospital-based, cross-sectional, interventional case series of 6 children with bilateral CRC. Demographic data were collected through a structured questionnaire and review of medical records. Distance and near best-corrected visual acuity (BCVA), contrast sensitivity and reading speed were evaluated, with refractive correction alone and with the use of LVAs (Keplerian telescopes for distance; hand-held magnifiers and a tinted lens 400 nm filter for near). Non-parametric methods were used for data analysis. Data represented as median (range).

Results: We included 6 patients with a median age of 11.5 (7 – 17) years. Five (of 6) were already using LVAs on a daily basis. The use of a Keplerian telescope achieved a significant median improvement in distance BCVA of 0.75 logMAR (P=0.0273, Wilcoxon Matched-Pairs Signed-Rank Test). Contrast sensitivity was also improved across all tested spatial frequencies. Near LVAs attained a significant median improvement in near BCVA of 0.67 logRAD (P=0.0152, Kruskal-Wallis Rank Test). Critical print size and reading speed at N10 were also significantly improved.

Conclusions: LVAs enable meaningful improvements in the visual performance of children with bilateral CRC, allowing for noteworthy distance and near visual acuities, as well as good reading speeds at small print sizes.