TELLER AND BÉBÉ VISION TROPIQUE ACUITY CARDS YIELD SIMILAR ACUITIES IN INFANTS. ((F. Vital-Durand[1], P.J. Benson[2] and C. Blakemore[2])), INSERM U. 371, Cerveau et Vision, Bron France[1]; University Laboratory of Physiology, Oxford UK[2].

Purpose. We have tested if acuity cards printed with a circular concentric sinusoidal pattern attenuated on its margin yield acuity measures similar to those obtained with a square wave vertical grating. We have also investigated if smaller intervals between two consecutive cards would allow more precise measures of resolution.

Methods. The design of Teller acuity cards (TAC) is well known. BVT acuity cards (Bébé Vision-Tropique®) use computer-generated circular, concentric, sinusoidally modulated gratings to measure maximum acuity. The gratings are attenuated in contrast at the border to avoid edge artefacts. The set of 13 cards provides gratings between 0.28 and 14 cycles/cm. By varying the presentation distance from 40 to 85 cm, one can obtain spatial frequencies from about 0.2 up to 21 cycles/deg (equivalent to Snellen acuities of about 20/3000 to 20/29). This wide range is suitable for acuity measurement in low-vision children and normal infants up to two-and-a-half years of age. The sequence of spatial frequencies is based on logMAR units. In the part of the range used most with normal infants, above 2.75 cycles/cm, the gratings are separated by one-third of an octave (one-tenth of a logMAR unit). Below this value the series is in steps of two-thirds of an octave. This design saves cost and facilitates rapid examination.

We have measured binocular resolution with the two types of cards on a series of unselected infants aged 4-24 months and compared the results.

Results. No difference in the global behavior of the infants was observed whether one or the other series of cards was presented first or second. The attractiveness of the two patterns is comparable. A paired *t*-test, performed on a provisional group of infants, showed no systematic difference between the two sets of cards. On the basis of the current sample we do not see any difference in accuracy of the measures.

Conclusions. BVT and TAC measure resolution with the same reliability.

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