Vision testing beads

Sir,

I wish to report a simple device for screening the visual acuity of children over 6 months old. The device itself is constructed from four spherical white beads (approximately 2 mm, 3 mm, 6 mm, and 12 mm in diameter) that are strung between two small spools on a 70 cm length of dark 3/0 monofilament thread (Figure). When not in use, the device can be stored in a small container, with the thread being wound onto one or other spool to prevent tangling.

While sitting facing the child, the clinician palms one spool in each hand, stretching the thread taut and roughly horizontal just in front of a dark background (such as an upright black attaché case on the clinician’s lap). All but one bead is trapped against the spools, and the remaining bead is shuttled back and forth by raising first one and then the other hand. The child’s visual acuity can be assessed from how small a bead elicits visual tracking when the beads are 3 metres (or 1.5 metres) away.

For children aged 18 months or over, the clinician’s clothing or case can provide a suitable dark background. Children under the age of 18 months generally find the clinician’s face more interesting than the shuttling bead. This problem can be overcome by using a small screen with an eye slit mounted on the lap.

Preliminary field trials indicate that Sheridan’s norms for the Stycar graded balls can be transferred to sliding beads: the normal 6 month infant can track a 6 mm bead at 3 metres (or a 3 mm bead at 1.5 metres), and from 8 months of age upwards normal children can track a 3 mm bead (and often a 2 mm bead) at 3 metres.

The vision testing beads are cheap, compact, and easy to make and use. They have some advantages over the standard Stycar techniques: no need for a room large enough to accommodate a long black mat (unlike the Stycar ‘rolling balls’ technique) and no need for a large screen and a room with one black wall (unlike the Stycar ‘mounted balls technique’).

Reference


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