Statistical evaluation in pediatric patients of the new Lang Stereopad test: a preliminary report

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**Purpose:** We have examined the new Lang Stereopad test to detect its real effectiveness in diagnosing small angle esotropia in children in daily practice.

**Methods:** We considered 217 patients suspected to have small angle esotropia, whose age range from 3 to 10 years (mean age 6.57 yrs.). The cut-off point at Lang Stereopad was 600”. All underwent a full orthoptic and ophthalmological examination. Lang 1 Stereotest was the “gold standard” test to detect esotropia.

**Result:** Among 172 patients considered orthotropic (stereopsis 550” at Lang 1) Lang Stereopad detected 166 real-negatives and 6 false-positives. Among 45 subjects considered esotropic (stereopsis > 550” at Lang 1) Lang Stereopad detected 43 real positives and 2 false-negatives. We found a specificity of 97% and a sensitivity of 95.5%. The positive predictive value was 87% and the negative predictive value was 98%. Likelihood ratio corresponded to 27.39.

**Conclusion:** Lang Stereopad is a simple test with high specificity and sensitivity. Positive and negative predictive values correspond to a test with a good reliability in young children. Likelihood ratio stresses the importance of Lang Stereopad in the diagnosis of small angle esotropia in children.

**References**
