OP14

DISCRIMINATIVE ABILITY OF INFANT NEUROLOGICAL INTERNATIONAL BATTERY (INFANIB) FOR THE NEUROLOGICAL EVALUATION OF A COHORT OF LOW BIRTH WEIGHT INFANTS FOLLOWE D IN A KANGAROO MOTHER C ARE PROGRAM IN BOGOTA.

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Background:
KMCP has implemented Infanib as neurological screening test for periodic evaluation of the LBWI for 18 years, to make timely intervention of neuromotor disorders of prematurity.

Objective:
To assess the discriminative ability of the Infanib applied at 3, 6 and 9 months of corrected age, on neurological outcomes at one year CA.

Method:
Observational analytic study on a cohort of 5857 infants, followed up to 1 year of CA in a KMCP in Bogota (1993-2010). Infants were included if had complete data regarding Infanib results at 3, 6 or 9 months and at 12 months CA including Griffiths Mental Development Scale. Outcome was defined as presence of neurological abnormality given by results of Griffiths tests and Infanib (abnormality in either test or indeterminate result in both). Infanib was treated as a dichotomous test: transient results were taken conservatively as abnormal.

Results:
256 infants (4.4%) had abnormal neurological result at 1 year. ICU admission, IVH, anoxia, weight and gestational age at birth, result as independently related to outcome (X2 p=0.000). Sensitivity of Infanib at 3 months was 62.2% (95% CI 55.8; 68.2) and specificity 76.1% (74.9; 77.2), ROC area 0.69 (0.66; 0.72). At 6 months sensitivity and specificity were 77.5% (71.8; 82.5) and 74.4% (73.2; 75.5), ROC area of 0.76 (0.73; 0.78). At 9 months sensitivity was 77.2% (71.5; 82.2) and specificity 91.1% (90.4; 91.9), ROC area 0.84 (0.81; 0.87). Sensitivity of Infanib increases at expense of specificity at 3, 6 and markedly in 9 months in high-risk groups: IVH: sensitivity: 96%, neonatal anoxia: 97.4%, birth weight <1000g: 93%, and GA ≤30w 87% (at 9 months).

Conclusion:
Infanib has acceptable operating characteristics for detecting neurological abnormalities at early stages. Performance improves in high-risk groups, may be due to severity of disorder or influence on the examiner by a high-risk infant, or both. Outcome at 1 year was an exploratory approximation to adverse neurological result that should be detected before 2 years. It is expected that ongoing

analysis, which includes only motor subscales of the Griffiths test for the outcome, will show better performance. Infanib may continue to be used as a neurological screening test during the first year to determine which infants will benefit from early intervention for neuromotor disorders.