

SCREENING GROUP B STREPTOCOCCAL DISEASE WITH URINARY ANTIGEN DETECTION

Alexandra Luz¹, Sandra Ferreira¹, Gina Marrão², João do Agro¹

1- Pediatrics Division, Hospital de Santo André, Leiria, Portugal

2 – Microbiology Division, Hospital de Santo André, Leiria, Portugal

Background and aims: Group B streptococcus (GBS) is still the leading pathogen causing neonatal infection. The gold standard for its diagnosis remains a positive blood and/or cerebrospinal fluid (CSF) culture.

The aim of this study was to evaluate the sensitivity, specificity, positive and negative predictive values of urinary GBS antigen latex agglutination (LA) test in diagnosing GBS infection.

Methods: GBS infection was defined as clinical evidence of disease in a colonized infant with GBS and/or a positive blood culture. The Slidex® méningite Strepto B was used in detecting urinary GBS antigen.

Results: From 2000 to 2008, 2073 tests were enrolled in this study, almost half of them performed in the last 3 years. They were identified 46 infants with GBS infection, of whom 28 had positive blood cultures. There were 4 positive CSF cultures. The LA test had a sensitivity of 81% and a specificity of 98%. The positive predictive value was 63% (41% if the test took place in the first 24 hours of life and 67% if performed after) and the negative predictive value was 99%.

Conclusions: The low sensitivity of this test makes it inadequate as a screening test, although its high specificity may be of use in infants with clinical evidence of disease and a negative blood culture. A negative result in urinary GBS LA test is also a very useful tool in excluding GBS disease.