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PARASSITOLOGIA

A NEW RAPID TEST ON WHOLE BLOOD AND ON SERUM FOR THE TOXOPLASMOSIS SCREENING IN PREGNANCY.

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INTRODUZIONE

In Italy the screening for toxoplasmosis in pregnancy, although not mandatory, is free of charge and recommended by Italian guidelines for the physiological pregnancy (2010/11). The screening includes anti-Toxoplasma IgG and IgM antibodies at the beginning of pregnancy and monthly follow-up for seronegative women. During the last years many studies have demonstrated the effectiveness of such a screening, but the decrease in seroprevalence of toxoplasmic infection, has brought forward the cost-benefit ratio of screening itself. With this study we wanted to evaluate the diagnostic efficacy of a new rapid test (ICT wb-TOXOPLASMA ICT IgG-IgM LDBIO Diagnostic Lyon France) on whole blood taken by finger puncture in comparison with the same test on serum after the approval of Fondazione IRCCS Policlinico San Matteo Ethic Committeee.

METODI

All the pregnant women, screened for toxoplasmosis at the Centro Unico Prelievi and at the Outpatient of Infectious Diseases department of the Fondazione IRCCS Policlinico San Matteo Pavia, were asked to take part to the study. At the same time they underwent the sampling for routine test: LIAISON® XL Toxoplasma IgG and IgM , IgG Avidity (Diasorin, Saluggia, Italy) VIDAS Toxo IgG II, IgG Avidity and ISAGA IgM (Biomerieux - Mercy l'Etoile - France) and when possible for ICT on the serum.

RISULTATI

Two hundred and seventy pregnant women underwent ICT whole blood test, ICT on sera was performed on 218 sample from the same patients and the results compared with the clinical diagnosis. Concordance (Cohen's kappa Test) sensitivity and specificity have been calculated. Agreement was very good with K = 0.9084 for whole Blood ICT and K= 0.9599 for serum ICT. Sensitivity was 89.5% (CI 95% 87.5-98.6), specificity 99% (CI 95% 96.8-100) for whole blood. On sera sensitivity was 94.9% (CI 95% 87.4-98.6), specificity 100% (CI 95% 97.4-100). The K value between the 2 test was 0,859. Only 30 (10%) patients refused to take part to the study

CONCLUSIONI

Our data suggest that the use of the rapid test can be an alternative to traditional tests for ease of execution, rapid response and reduced cost. Both the tests on different matrices showed a good specificity avoiding most of IgG/IgM false positive results obtained with fully automated test. The test is easily accepted by patients, but all positive cases must always be tested with routine tests to discriminate between different antibody classes and to date the infection.