P192

PARASSITOLOGIA

DIAGNOSTIC ACCURACY OF TOXOPLASMA WESTERN BLOT TEST IN SUSPECTED SEROCONVERSION IN PREGNANCY : A MULTICENTRIC STUDY

A. Corcione [3], V. Meroni [5], F. Genco [6], L. Scudeller [4], M. Brenier-Pinchart [7], H. Fricker-Hidalgo [7], C. L'Ollivier [1], H. Pelloux [7], L. Paris [2]

[1]*Aix Marseille University, CNRS, IRD, INSERM, AP-HM, URMITE, IHU Méditerranée-Infection Marseille,2, France*

[2]*APHP, Hôpitaux universitaires Pitié-Salpêtrière/Charles Foix, Parasitology-Mycology, Paris, France*

[3]*Clinical Surgical Diagnostic and Pediatrics Science Department University of Pavia, Italy*

[4]*Clinical Epidemiological unit Fondazione IRCCS Policlinico San Matteo Pavia,Italy*

[5]*Internal Medicine and Medical Therapy University of Pavia Italy*

[6]*Microbiology and Virology unit Fondazione IRCCS Policlinico San Matteo Pavia,Italy*

[7]*Parasitology-Mycology, University Hospital and Grenoble-Alpes University, Grenoble, France*

INTRODUZIONE

Due to the high sensitivity, the automated screening tests widely employed for Toxoplasma gondii, serology can yield false positive results due to cross and/or non-specific reaction. On the other hand therapy with spiramycin, given most of the time, when IgM are found to be positive, could delay IgG production and mask seroconversion. There is the need of second level test to early detect real toxoplasmic seroconversions. We planned an European multicentre study with 4 reference center for the diagnosis of toxoplasmosis: (Pitié- Salpétriêre Paris , CHU Grenoble -Alpes Grenoble, La Timone Marseille, IRCCS Policlinico San Matteo Pavia) to evaluate the diagnostic accuracy of the new LDBIO-TOXO II IgG/ IgM Immunoblot (IgG- IgM WB) by LDBio Lyon - France. We also looked at the immunodominant antigen in the IgM WB.

METODI

We retrospectively analysed the leftover of laboratory samples stored after clinical diagnosis of 403 sera: 234 corresponding to 96 toxoplasmic seroconversions (2 to 3 sera/patient) and 169 sera corresponding to 69 patients with cross reactions and/or non-specific IgM (1 to 3 sera/patient). All the patients had a documented seroconversion with first IgG /IgM negative results and then either IgG /IgM positive or a false positive result. All anonymised samples were processed in blind by LDBio. To validate WB we performed two different analyses: concordance (Cohen's kappa) with final diagnosis (seroconversion or false positive) and diagnostic accuracy (sensitivity, specificity etc).

RISULTATI

The concordance between IgM and IgG type II WB with the diagnosis was good K= 0,89 and K= 0,89, respectively. In 4 cases the appearance of IgM and 46 cases the appearance of IgG was recorded by WB before the traditional tests. Sensitivity was 100% for IgM WB and 93,8% for IgG WB. Specificity was respectively 87% and 95.7%. Looking at the most antigenic bands, P30 was recorded in all but one positive sample and P40 in all but five.

CONCLUSIONI

The IgM WB not only detected all seroconversions, and even earlier than traditional tests in four cases, but also well discriminated the false positive results. The definition of immunodominant band will be extremely helpful in the interpretation of the results.