

PRELIMINARY EVALUATION OF THE CHORUS SYSTEM FOR THE ANALYSIS OF AVIDITY IN IgG CLASS ANTI-TOXOPLASMA GONDII

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INTRODUCTION

The measurement of IgG avidity is a particularly useful test in the serology of Toxoplasma gondii infection, above all in view of the fact that the determination of IgM, IgG and IgA anti-Toxoplasma only, often is not enough to determine the infection.

In the present work we have tested preliminarily the Chorus Toxoplasma IgG Avidity kit applied to the Chorus system (DIESSE Diagnostica Senese S.p.A., Monteriggioni) with the Enzywell Toxoplasma IgG Avidity kit (DIESSE Diagnostica Senese S.p.A., Monteriggioni), used in our laboratory.

MATERIALS AND METHODS

85 routine samples were tested with the aim of evaluating the agreement between the two compared methods. The disagreeing samples were furthermore tested with total Ig immunofluorescence method, IgM immunofluorescence (Remington test) and specific IgA, as well as, where possible, comparing the results obtained on samples from the same patient, previously or successively submitted to serological anti toxoplasmosis analysis.

Interpretative criteria **TOXOPLASMA IgG AVIDITY**

	ENZYWELL	CHORUS
High Avidity	> 35%	> 40%
Low Avidity	< 30%	< 30%
Average Avidity	30 < % < 35	30 < % < 40

RESULTS

The two tests in comparison resulted in agreement in 78 cases out of 85 (91,8%), in detail:

- Chorus – Enzywell high avidity: 57
- Chorus – Enzywell low avidity: 18
- Chorus – Enzywell medium avidity: 3

As to what concerns the 7 disagreeing samples:

- Chorus high avidity – Enzywell average avidity: 3
- Chorus high avidity – Enzywell low avidity: 3
- Chorus low avidity – Enzywell high avidity: 1

ENZYWELL	CHORUS	High	medium	Low
	High		57	
Average		3	3	
Low		3		18

The further analysis to which the 7 disagreeing samples were submitted were evidenced by a concordance with the value of avidity obtained with the Chorus system of 71% (5 cases out of 7) therefore it proved more reliable than the microplate method. It was evidenced that the percentage values found with the Enzywell Toxoplasma IgG avidity test (for the cases of previous infection) prove, differently from the values found with the Chorus system, slightly discriminating, since they are almost at the limit of doubtful samples.

