

IGG AUTOANTIBODIES INDUCED BY *T. CRUZI* DURING PREGNANCY: CORRELATION WITH GRAVIDITY COMPLICATIONS AND EARLY OUTCOME ASSESSMENT OF THE NEWBORNS

VICCO MH, RODELES L, CAPOVILLA GS, PERRIG M, HERRERA CHOQUE AG, MARCIPAR I, BOTTASSO O, RODRÍGUEZ C, CUÑA W.

The aim of the present research was to evaluate the correlation of vertically transmitted IgG antibodies induced by *T. cruzi* and newborn early outcome assessment, mainly birth weight and gestational age. Methods We performed a cross-sectional study with 183 pregnant women (64 with asymptomatic Chagas disease) and their newborns. Both were subjected to complete clinical examination. Peripheral parasitemia was assessed in mother and neonates by parasite detection through microscopic examination of the buffycoat from mother's peripheral and cord blood. Antibodies induced by *T. cruzi*, such as anti-FRA, anti-B13, anti-p2b and anti-*T. cruzi* were assessed by immunoassay. Birth weight, general condition evaluation by APGAR Score and gestational age by Capurro Score, were determined in newborns. Results The rate of stillbirth background and pregnancy-induced hypertension were higher in patients with Chagas disease ($p= 0.01$ and $p= 0.0$

respectively). Parasitemia was detectable in 17 mothers and 4 newborns. The newborns of mothers with detectable parasitemia presented decreased gestational age ($p = 0.006$) and body weight ($p = 0.04$). Mostly all the mothers with Chagas disease and all their newborns have positive values of antibodies induced by *T. cruzi*; however, only anti-p2b showed to be related to the presence of complication during pregnancy (OR 2.35, $p = 0.036$), and to low birth weight (OR 1.55, $p = 0.02$). Conclusions Low birth weight and decreased postnatal estimation of maturity were related to detectable parasitemia in the mother. Also, vertical transmission of *T. cruzi*-induced autoantibodies might have clinical implication in newborns given the negative association between anti-p2b values and weight.

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