PREVALENCE OF GBV-C IN BLOOD DONORS AND IN SUBJECTS EXPOSED TO *LEISHMANIA CHAGASI* IN RIO GRANDE DO NORTE, BRAZIL.

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GBV-C is a member of the flaviviridae family that infects humans, but has not yet been associated with disease. GBV-C appears to be primarily lymphotropic and to induce Th1 immune responses. *L. chagasi* is a protozoan pathogen and the causative agent of visceral leishmaniasis. The outcome of *L. chagasi* infection ranges from self-resolution, to progressive visceral leishmaniasis. Studies have shown that Th1 immune responses are suppressed during symptomatic visceral leishmaniasis. We hypothesized that GBV-C infection could in part influence the outcome of *L. chagasi* infection by modulating type 1 immune responses. We determined the prevalence of GBV-C infection in a healthy blood donor population from Natal, Brazil and in study subjects infected with *L. chagasi*. Viremia was present in 19% of blood donors (n=109), and anti-E2 antibodies in 22%. Amongst the Leishmania-infected subjects (n=448), GBV-C viremia was present in 6%, and anti-E2 antibodies in 20%. The presence of anti-E2 antibodies was higher in subjects greater than 15 years old ($p<0.005$). Among those with GBV-C infection, the mean leishmania DTH response was significantly larger than in those without GBV-C (DTH response 7.9 mm induration versus 4.8 mm). Thus, GBV-C infection was associated with a larger DTH response ($p=0.00062$). These data support the hypothesis that GBV-C infection may influence human immune responses during *L. chagasi* infection.

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