Analysis of Toxoplasma gondii surface antigen 2 gene (SAG2). Relevance of genotype i in clinical toxoplasmosis

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Toxoplasma gondii is one of the most successful protozoan parasites given its ability to manipulate the immune system and establish a chronic infection. It is a parasite with a significant impact on human health, mainly in immunocompromised patients. In Europe and North America, only a few clonal genotypes (I, II and III) seem to be responsible for the vast majority of Toxoplasma infections. Surface antigen 2 gene (SAG2) has been extensively used for genotyping T. gondii isolates. The analysis of this locus reveals that in Northern hemisphere, human disease causing isolates are mainly type II, whereas T. gondii isolated from different animals are both type II and III. Since the immune response depends on parasite genotype, it seems relevant to characterize parasites producing human toxoplasmosis in different geographical areas. The growing information about the prevalent T. gondii genotypes in South America mostly refers to domestic animals. This is the first report of genetic characte