There is growing evidence to suggest that chagasic myocardia are exposed to sustained oxidative stress-induced injuries that may contribute to disease progression. Pathogen invasion- and replication-mediated cellular injuries and immune-mediated cytotoxic reactions are the common source of reactive oxygen species (ROS) in infectious etiologies. However, our understanding of the source and role of oxidative stress in chagasic cardiomyopathy (CCM) remains incomplete. In this review, we discuss the evidence for increased oxidative stress in chagasic disease, with emphasis on mitochondrial abnormalities, electron transport chain dysfunction and its role in sustaining oxidative stress in myocardium. We discuss the literature reporting the consequences of sustained oxidative stress in CCM pathogenesis.

Keywords
chagasic cardiomyopathy, reactive oxygen species, inflammation, mitochondria, oxidant/antioxidant status, oxidative damage.