Aplicaciones y potencial de las técnicas de diagnóstico por imagen en la investigación biomédica de la enfermedad de Chagas [

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text (article)

Analítica

Diagnostic imaging techniques are non-invasive or minimally invasive tools that allow internal organ visualization and functional studies. These techniques include ultrasound, radiology, computed tomography, magnetic resonance, and nuclear imaging, among others. Diagnostic imaging techniques have become an essential component in studies that require in vivo monitoring of pathological changes. In this review, we present these techniques and their applications for the study of infection with Trypanosoma cruzi, the causative parasite of Chagas disease, with an emphasis on ultrasound. This technique is the most widely used diagnostic imaging modality due to its low cost and because it is the only one that provides real-time images. Ultrasound is now routinely used at the Research Center of the Autonomous University of Yucatan for the study of T. cruzi infection in a murine model. It has proven to be useful for assessing in vivo morphological and functional changes in the heart and to study infection progression and new drug effectiveness. Additionally, the use of echography has allowed us to develop new diagnostic tools that are still at the experimental stage. Ultrasound has great potential to answer questions that remain unexplored in the study of Chagas disease research, including the ability to evaluate the damage caused to organs during the infection
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