Enferm Infecc Microbiol Clin. 2018;36(7):395–396

Enfermedades Infecciosas y Microbiología Clínica

www.elsevier.es/eimc

Editorial

Who currently benefits from the aetiological treatment for Chagas disease?☆

¿Quién se beneficia actualmente del tratamiento etiológico de la enfermedad de Chagas?

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Research into Chagas disease enters a new stage more than 100 years since its discovery. Academic interest in this condition, hitherto considered a neglected tropical disease, remained stagnant for many decades, but was eventually rekindled at the start of this century. It is not surprising, therefore, that many gaps remain in our knowledge that urgently need to be filled with information and evidence.

One of the most pressing issues is treatment. The standard treatment for Chagas disease is currently benznidazole, a nitroderivative discovered in the late 1970s. There is high-quality evidence for the use of aetiological treatment in acute phases or during the first few years following infection. Cure rates are between 65 and 80%, and nearly 100% in the event of congenital transmission treated during the first few years of life.[1] In the chronic phase of the disease, the indication for treatment with the therapeutic options currently available is still controversial. Although observational studies in adults show cure rates of between 15% and 40%, a meta-analysis suggests that benznidazole has little benefit compared to placebo or no treatment in this phase of the disease.[2] In addition, a recent double-blind randomised clinical trial of benznidazole and placebo (BENEFIT) showed that treatment with benznidazole does not significantly reduce cardiac clinical deterioration in patients with moderate to severe cardiomyopathy.[3]

Despite the uncertainties surrounding the therapeutic approach in the chronic phase of the disease, experts agree that aetiological treatment, which can halt the congenital transmission of this disease, should be targeted at women of reproductive age.

The study published by Alcántara Román et al. from the *Unidad de Salud Internacional Metropolitana norte (PROSICS Metropolitana Norte*) [North Metropolitan International Health Unit (PROSICS Metropolitana Norte)] of Barcelona, highlights 3 particularly significant facts.[4]

Mechanisms for the prevention of acute cases have been implemented in Spain, the main host country for immigrants with Chagas disease. Since 2005, donated blood and tissue has been screened for Chagas disease prior to transfusion or transplantation. However, there is no national policy regulating screening for congenital transmission during pregnancy; the system is reliant on the healthcare policies in force in each autonomous community, or on specific protocols in place at each health centre. Either way, these are nothing more that secondary prevention strategies for early detection of the infection, but they do not prevent transmission of the disease. In view of the limitations of current diagnostic techniques and the characteristics of the population, one of the main problems to be overcome in clinical practice is loss of contact with mothers and babies during postnatal follow-up. Strategies such as those put forward by Alcántara Román et al. are needed in order to adapt legislation to the reality of our patients. This type of community-wide intervention has proven effective on many occasions, not only as a means of monitoring the offspring of mothers included in the programme, but also as a means of extending tests to include other family members.[5]

The data obtained from the screening programme in Catalonia show the diligence with which the medical community has implemented the "Protocol for screening and diagnosing Chagas disease in pregnant Latin American women and their newborns" (http://canalsalut.gencat.cat/web/.content/home_canal_salut/professionals/temes_de_salut/chagas/documents/arxius/chagas_angles.pdf).

Serology results (both positive and negative) were available for all except 2 of the 53 children born in Catalonia, although about 12% of these cases were lost to follow-up.

Finally, all children born to mothers with Chagas disease who became pregnant after being treated with benznidazole were negative for *Trypanosoma cruzi* on serology tests. This is a key outcome, since it corroborates the evidence published by other groups that aetiological treatment in young women of childbearing age decreases the proportion of patients with parasitaemia detected by PCR, and all but eradicates vertical transmission in both endemic and non-endemic regions.[5,6]

DOI of original article: https://doi.org/10.1016/j.eimc.2018.04.005

☆ Please cite this article as: Molina Romero I, Sulleiro Igual E. ¿Quién se beneficia actualmente del tratamiento etiológico de la enfermedad de Chagas? Enferm Infecc Microbiol Clin. 2018;36:395–396.

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Therefore, in areas with limited access to treatment for Chagas disease, and with poor safety profiles and varying efficacy rates in certain population groups, steps must be taken to identify more clearly which patients will most benefit from the treatment currently available. While awaiting the development of new medicinal products and new scientific evidence, women of childbearing age, newborns and young people under the age of 18 are the main beneficiaries of aetiological treatment. Clinicians and the healthcare sector as a whole need to give priority to strategies for improving access to healthcare and diagnosis in this population, and guaranteeing these individuals adequate treatment and follow-up.

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