

Reactivation of Chagas disease after a bone marrow transplant

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Dear Sir,

With much interest we read the report by Andrea Angheben and collaborators entitled "Reactivation of Chagas disease after a bone marrow transplant in Italy: first case report" published recently in *Blood Transfusion*¹. This case report presents characteristics similar to those in most reports concerning Chagas disease and transplants in non-endemic areas, with the lack of initial suspicion often leading to a late diagnosis and fatal evolution².

Given that Argentina is a country in which Chagas disease is endemic, donors and recipients have been tested for this disease from the beginning of the haematopoietic stem cell transplantation programmed in 1986. However, reactivation and transplantation are included in the context of "urbanisation" of Chagas disease due to the migration of people from rural areas to big cities, either within their own country or in other countries as we previously described³.

The post-transplant monitoring of the recipient has been standardised essentially by parasitological methods, the Strout method or biopsies of the damaged organ when the clinical manifestation of reactivation is an erythematous nodular dermatitis containing *Trypanosoma cruzi* amastigotes in the lesions.

More recently, polymerase chain reaction analysis has been proposed with the aim of detecting early reactivation and enabling prompt treatment. The reliability of these techniques and the success of pre-emptive therapy are able to keep the morbidity and mortality of transplant-related Chagas disease under control. Donors with positive serology donors are accepted only in exceptional circumstances⁴.

In Europe, recommendations for the management of Chagas disease in transplants have been published in Spain where, like Italy, the Latin America immigration rate is high and an important percentage of donors and recipients come from those areas. The American Society of Hematology has also published recommendations with a focus on the prior testing of candidates for transplants, and on the fact that the presence of positive serology is not a contraindication for recipients, while positive donors are not accepted^{3,5}.

The Authors recommend that health systems of non-endemic areas and their staff, essentially clinicians and biochemists, include the evaluation of donors and

recipients of haematopoietic stem cell transplantation, such as travellers who have been in areas in which the disease is endemic.

In conclusion, serological testing, through the two currently available methods, of both recipients and patients prior to transplantation and follow-up of haematopoietic stem cell transplant recipients through the Strout method and/or polymerase chain reaction enables early detection of reactivation of Chagas disease and application of effective treatment which leads to the patients' recovery in most cases.

The Authors declare no conflicts of interest.

References

- 1) Angheben A, Giaconi E, Menconi MC, et al. Reactivation of Chagas disease after a bone marrow transplant in Italy: first case report. *Blood Transfus* 2012; **10**: 542-4.
- 2) Mascola L, Kubak B, Radhakrishna S, et al. Chagas disease after organ transplantation. United States 2006. *MMWR* 2006; **55**: 798-800.
- 3) Pinazo MJ, Miranda B, Rodriguez-Villar C, et al. Recommendations for management of Chagas disease in organ and hematopoietic tissue transplantation programs in nonendemic areas. *Transplant Rev* 2011; **25**: 91-101.
- 4) Altclas J, Sinagra A, Dictar M, et al. Chagas disease in bone marrow transplantation: an approach to preemptive therapy. *Bone Marrow Transplant* 2005; **36**: 123-9.
- 5) Tomblyn M, Chiller T, Heinsele H, et al. Guidelines for preventing infectious complications among hematopoietic cell transplantation recipients: a global perspective. *Biol Blood Bone Marrow Transplant* 2009; **15**: 1143-238.

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