

IMPORTED CHAGAS DISEASE IN ITALY: THE TIP OF THE ICEBERG

Description of the first 11 cases treated at the Centre for Tropical Diseases

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OBJECTIVES

To describe the first 11 cases treated at the Centre for Tropical Diseases (CTD) and their tolerance to treatment with benznidazole.

METHODS

CASE DEFINITION: patients with at least two different concordant positive serologic tests for *Trypanosoma cruzi* (*Trypanosoma cruzi*-IFA Arnika plus ELISA Biokit, or ELISA Biokit + ID-PaGIA Dia-Med or Rapid Test Chagas, ICT Cypress Diagnostics). Moreover, *T. cruzi* PCR was performed at the referral laboratory of Hospital Clinic, Barcelona.

Eleven patients were visited from April 2006 to June 2009 by our Centre and were submitted to detailed epidemiological and clinical history, clinical examination, and thorough assessment of the cardiac and digestive function. A treatment with benznidazole, 5 mg/Kg/die divided in three doses for 60 days as suggested by literature (JAMA2007;298(18):2171-81) was offered to all.

A follow-up was carried out on a weekly basis in order to monitor any untoward reaction and routine blood test were performed at each visit.

RESULTS: see TABLE

Nine subjects had no specific symptom; one had had a cerebral stroke; one suffered from severe constipation.

Six patients were classified as indeterminate Chagas, 5 as chronic Chagas (all with ECG alterations, one also with megacolon). PCR for *T. cruzi* was positive for two subjects, both from Bolivia (patient 4 and 9, see TABLE).

For 8 patients the treatment has been concluded, one patient suspended treatment after one month for misunderstanding. 7 subjects presented side effects (itching rash, disaesthesias, paraesthesias) and/or laboratory alterations, beginning in the 3rd or 4th week; of those, 2/5 had to stop the treatment (at the 5th and 7th week) due to drug-induced hepatopathy and peripheral neuropathy, respectively.

All patients have been included in a follow-up programme with yearly clinical and laboratory check up.

Patient number	Age	Sex	Origin	Family history of Chagas death	Relevant clinical history	Clinical phase	Treatment length (days)	Side effects
1	43	F	Bolivia	Yes	negative	cardiologic involvement	60	cutaneous rash, paraesthesias
2	44	F	Mexico	No	negative	indeterminate	60	cutaneous rash
3	59	F	Argentina	No	negative	indeterminate	60	no one
4	53	F	Bolivia	Yes	negative	cardiologic involvement	60	itching
5	53	F	Ecuador	No	cerebral embolism secondary to heart aneurism	cardiologic involvement	60	itching, mild cutaneous rash
6	35	F	Bolivia	Yes	negative	indeterminate	60	no one
7	51	F	Bolivia	Yes	severe constipation	cardiologic gastrointestinal involvement	35	cutaneous rash, disaesthesias/paraesthesias (peripheral neuropathy)
8	41	M	Bolivia	Yes	negative	indeterminate	60	no one
9	28	F	Bolivia	Yes	negative	indeterminate	21	hepatitis, cutaneous rash
10	41	M	Bolivia	No	negative	cardiologic gastrointestinal involvement	30	cutaneous rash, patient suspension
11	28	F	Bolivia	Yes	negative	indeterminate	60	no one

CONCLUSION

About 8 million people are held to be infected by *T. cruzi* in Latin America. Recently Chagas disease has become an increasingly important problem among immigrants to non endemic countries. Treatment, either with benznidazole or nifurtimox, aims at preventing the disease progression as well as the congenital transmission, but its efficacy is not yet fully known. Unfortunately, neither drug is well tolerated.

According to preliminary screening data, we estimate that some thousand infected subjects are to be expected in Italy in the Bolivian community only (about 25% prevalence). Our cases clearly represent only the tip (of the tip) of the iceberg.

Ad-hoc policies are urgently warranted to identify the subjects who could benefit from a treatment.

The problem remains of how to reduce the rate of untoward effects of treatment, possibly by adopting different schedules/dosages as suggested by some authors (Expert Rev Anti Infect Ther2009;7(2):157-63).