

SIMPÓSIO INTERNACIONAL comemorativo do

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Trabalhos Científicos

EVALUATION OF THE BRAZILIAN DIAGNOSTIC ALGORITHM FOR CHRONIC CHAGAS DISEASE IN A REFERENCE CENTER

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Eixo Temático:

Diagnóstico

The diagnosis of the chronic Chagas disease is performed with two serological tests with the same blood sample. Executing two test may solve undesired false positives or false negatives but also may give a unacceptable rates of discordant or indeterminate results.

Our aim was to describe the application of Brazilian algorithm for the diagnosis of chronic Chagas disease and estimate the resolvability of inconclusive results, and quantify the necessity of use confirmatory tests such as PCR.

All laboratory results and medical records of patients who searched for Chagas disease diagnosis at Instituto de Pesquisa Clinica Evandro Chagas (IPEC) - FIOCRUZ, at 2004 and 2007 were analyzed. In these periods, indirect immunofluorescence and enzyme-linked immunosorbent assays serological techniques from different trade marks were used. Inclusion criteria was: first time patients with suspected Chagas disease; exclusion criteria was: those who already had the diagnosis and test results without register number.

Initial screening included 1811 attendance registers or exams; 72 patients were excluded because they did not have registration attendance; 1182 patients because they were not first time patients or because they already had Chagas disease diagnosis. 557 patients were analyzed, 260 were from 2004 and 208 from 2007. Four hundred and ninety seven patients were attended and 60 defaulted the investigation after first blood collection. When test result was inconclusive, it was always recommended a new sample collection 3 months after the previous sample.

Among the patients who were attended, 272 (48.75%) were male and 286 (51.25%) were female. Patients were referenced to diagnosis for several reasons: 248 (44.44%) by physicians, 94 (16.85%) by relatives, 70 (12.54%) by blood banks (BB), 37 (6.63%) came by themselves, 8 (1.63%) because of other causes, and 35 patients (7.11%) unknown. When referenced by physicians, indications were: labor accidents 9 (3.63%), suspected heart disease 152 (61.29%), suspected esophagus disease 23 (9,27%); suspected gut disease 15 (6.05%); born in endemic area 17 (6.85%); other indications 11 (4.44%), transplant screening 9 (3.63%); indication not registered 12 (4.84%).

In the first sample results we observed: 317 (56.91%) without Chagas disease; 143



(26.34%) with Chagas disease; 15 (2.69%) indeterminate; 10 (1.79%) discordant; 65 (11.65%) default the investigation before the diagnosis. Seven patients that have discordant or inconclusive results received the diagnosis as without Chagas disease from their physicians after clinical evaluation. Thirty collected a second sample, and the results were: without disease 6 (20.00%); with disease 5 (16.67); discordant 2 (6.67%); default investigation 11 (36.77%); 6 (20.00%) had medical discharge as without disease. Of 8 patients who had indication to continue the investigation only 4 collected the third sample. The results were: 2 without disease, 1 with disease, 1 default the investigation. Considering only the 70 patients from BB, at the first sample: without disease 23 (32.86%); with disease 41 (58.57%); indeterminate 1 (1.43%); discordant 3 (4.29%); medical discharge as without disease 2 (2.86%). In the second sample only 4 collected and 2 abandoned.

The resolution rate in first sample was 82%, in the second sample 37%, the rate of inconclusive results in the first sample was about the same as in the second sample. Apparently, the algorithm resolution is lower than desired and the collection of a second sample does not considerably increase the resolution of the algorithm. Only 8 patients of 557 would need confirmatory techniques as such WB or PCR following the current recommendations.

It seems that investigation default is as much problematic as the inconclusive results. Perhaps, it would be more adequate not to wait a third sample to apply the confirmatory technique. Also, exploring simple clinical predictors for inconclusive results may improve decision making with the algorithm.

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Apoio:



Realização:



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