Clinical significance of Blastocystis hominis: experience from a Tropical Medicine Unit in northern Spain
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Background

- *Blastocystis hominis* is an intestinal protozoan sometimes found in the stools of healthy people as well as in the stools of those who have diarrhea, abdominal pain or other gastrointestinal problems.
- The pathogenic role of this organism in human beings is still controversial and has varied among reports from different geographic areas.

Objectives

- The purpose of this study was to determine the clinical significance of *B. hominis* in patients attended in Tropical Medicine Unit in The Northern of Spain.

Methods

- During the years 2007-2011 we conducted a prospective screening program of detection of *B. hominis* in all patients attending in Tropical Medicine Unit of Hospital Universitario Central of Asturias, in the north of Spain.
- Three stool samples were analyzed through direct microscopic examination with formol-ether concentration.
- Clinical information was collected on any patient who was diagnosed with *B. hominis*.
- All positive patients were treated with metronidazole for ten days. Follow-up stool samples were collected 2-4 weeks after treatment and underwent microscopy.
- All data was entered into a database and analyzed using SPSS 18.0 software package. Quantitative variables were analyzed with the Student t test or the Mann-Whitney test when appropriate.
- Qualitative variables were analyzed with the chi square test with the Yates correction or Fischer’s exact test (2-tailed) when necessary. All p values were 2-sided and values of 0.05 or less were considered statistically significant.

Results

- 810 patients were analyzed. Twenty patients (2.4%) presented *B. hominis* under direct microscopy.
- Thirteen patients were female, average age 38(16) years.
- Ten patients had gastrointestinal symptoms, including diarrhea and/or abdominal pain. Six patients were asymptomatic and the rest showed symptoms as fever or hypereosinophilia that could be attributed to other causes.
- Eleven patients had a coinfecion for E.histolytica, two for A. lumbricoides, two for T.trichuria and two for S. stercoralis.
- Three patients had underlying diseases (2 cases Virus Hepatitis C infection and one case HIV infection). All patients improved with metronidazole for ten days.

Conclusion

- The association of clinical symptoms and *B. hominis* could not be delineated from our study due to presence of coinfections. However all of the patients improved with specific therapy for *B. hominis*. More studies from different areas are needed in order to delineate the clinical significance *B. hominis*.

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