Characteristics of Dientamoeba fragilis infection. A neglected disease
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Background

Dientamoeba fragilis is a protozoan parasite found in the gastrointestinal tract of humans initially considered it as a non-pathogenic commensal.

Actually the majority of D. fragilis infected patients presenting with gastrointestinal symptoms including diarrhea, loose stools, and abdominal pain. Because of the high sensitivity of polymerase chain reaction is now the diagnostic method of choice.

Objectives

The aim of this study was to document primarily the prevalence and clinical features of D. fragilis infection in patients attended in Tropical Unit.

Methods

During the year 2011-2012 we conducted a prospective screening program of D. fragilis infection in all patients attending in Tropical Medicine Unit of Hospital Universitario Central de Asturias.

Combined examination of three concentrated stool samples, and polymerase chain reaction was used as screening. We considered that infection exits if the microscopic visualization of larvae in stool sample and/or the polymerase chain reaction was positive.

Clinical information was collected on any patient who was diagnosed with D. fragilis infection. Eosinophilia in blood test was studied.

All positive patients were treated with metronidazole for ten days. Follow-up stool samples were collected 2-4 weeks after treatment and underwent microscopy and PCR.

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

Among 247 patients (116 symptomatic and 131 asymptomatic patients) Dientamoeba fragilis was detected at 15 patients, (62% male, average age 32 (8) years).

The prevalence was 6%. All patients were diagnosed by polymerase chain reaction Microscopy didn’t detected parasites.

Most infected patients presented with diarrhea and abdominal pain (60%). Chronic infections, defined as presenting with prolonged diarrhea and symptoms for over 2 weeks’ duration were reported in six % of patients. Three patients (20%) had a peripheral eosinophilia. The rest were asymptomatic.

No other parasites were diagnosed. One patient was immunosuppressed due to liver transplant. Treatment of infection with metronidazole resulted in the eradication of the parasite and complete resolution of symptoms without relapses.

Conclusion

These results confirm the pathogenic nature of D. fragilis. D. fragilis is a commonly encountered enteric protozoan parasite, that should be considered in any differential diagnosis of gastrointestinal disease. We recommend laboratories routinely test for the organism.

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