

Cyclospora cayetanensis and HIV Infection Diagnosed only after Intestinal Biopsies

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Clinical Image

A 40-year old man presented with diarrhea since one year. Stools were watery, 15 to 20 times a day, without blood or mucus. A PCR on feces was negative for *Giardia lamblia*, *Entamoeba histolytica*, *Cryptosporidium parvum/hominis*, and *Clostridium difficile*. Small bowel biopsies were taken that showed supranuclear intracytoplasmic structures in keeping with *Cyclospora cayetanensis* infection (Figure 1). Microscopy of feces showed the typical auto fluorescent spherical bodies (Figure 2). *C. cayetanensis* is a coccidian protozoan that occurs worldwide in tropical and subtropical areas. It causes profuse, watery diarrhea and if untreated can last up to 12 weeks.

Although it is not an AIDS defining illness, the long duration of diarrhea prompted us to test for HIV-infection which was positive (HIV-1, CD4+ T-cell count 75 cells/ μ L). Since nowadays the diagnosis of intestinal protozoan infection is usually by PCR on feces restricted to *G. lamblia*, *E. histolytica*, and *C. parvum/hominis*, additional investigations on feces should be requested in case of negative PCR findings and persistent suspicion of infection.

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Figure 1: H&E stain of a duodenal biopsy (200x) shows a villous architecture with a slight increase in intra-epithelial lymphocytes and intra-epithelial, supranuclear oval structures (arrows).



Figure 2: Wet mount examination using fluorescence microscopy (wavelength 365 nm, 400x) shows auto-fluorescence of the double-layered wall of the oocyst of *C. cayetanensis*.

References

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