

Oocysts of *Cyclospora cayetanensis*

Introduction

Cyclospora cayetanensis, a coccidian protozoan, has been described in association with diarrhoeal illness in various countries, in particular Nepal, Pakistan and India.

Pathogenesis

Environmental data suggest that *Cyclospora*, like *Cryptosporidium* species, is a water-borne parasite. Patients from whose stools the organism has been isolated have reported nausea, vomiting, weight loss and explosive watery diarrhoea. Flatulence and bloatedness are associated symptoms. The site of infection is the small bowel.

Laboratory diagnosis

The oocysts of *C. cayetanensis* are spherical, measuring 8-10 μ in diameter. They can be seen in formol-ether concentrated stool samples by light microscopy. They are refractile spheres which exhibit blue autofluorescence under ultraviolet light. It is important to note that UV microscopes set up for FITC and auramine microscopy only (450-500nm) will fail to detect the autofluorescence of the oocyst. Iodine-quartz microscopes do not produce UV wavelength below 400nm, while both mercury vapour and xenon vapour microscopes must be fitted with a 340-380nm excitation filter to demonstrate autofluorescence.

The oocysts are variably acid-fast when stained by the modified Ziehl-Neelsen method. Some cysts are acid-fast whereas others appear as round holes against a green background. They do not stain well with phenol-auramine.

