

LIGHT-MICROSCOPICAL DETECTION OF MICROSPORIDIA SPORES IN STOOL SAMPLES FROM AIDS-PATIENTS IN AUSTRIA

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Intestinal infection with microsporidia has been described in association with chronic diarrhea in AIDS-patients from Africa, the United States and Europe. Nearly all infections have been with Enterocytozoon bieneusi, an obligate intracellular spore-forming protozoa. In most cases diagnosis has been based solely on invasive procedures and identification of organisms in biopsy specimens of small intestine. In our study we used light-microscopical methods to detect E. bieneusi spores in feces.

Since February 1992, stool samples from 377 patients with HIV and from 20 immunocompetent patients with unexplained chronic diarrhea have been examined by light microscopy (x1250) using two different staining methods, Calcofluor, a stain which binds to the chitin in the endospore layer of the spore wall, and Giemsa. Positive samples were confirmed by transmission electron microscopy.

E. bieneusi-spores have been diagnosed in 35 out of 377 (9,3 %) AIDS-patients but in none of the 20 immunocompetent patients with chronic diarrhea.

Our findings are the first detection of E. bieneusi infections in AIDS-patients in Austria and support the concept of stool examination to obviate the need for invasive techniques for diagnosis of Intestinal **microsporidiosis**. Calcofluor stain has proved a good method for rapid spore detection but it may not work with immature spores with little chitin fluorescence. Therefore Giemsa is needed for verification and remains the most **effective staining-method for light microscopical examination**.