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Prevalence of *Blastocystis hominis* among HIV-positive and HIV-negative patients in Poland

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Blastocystis hominis is the most common unicellular parasite found in human faeces. *Blastocystis* have been isolated from many species of animals including mammals and birds. Little is known about transmission and molecular mechanisms of pathogenesis for this parasite. The clinical symptoms of *B. hominis* infection are nonspecific and include abdominal pain, nausea, cramps and diarrhoea. Some reports suggest that *Blastocystis* may be responsible for a variety of diseases including enteritis, colitis, and arthritis. The parasite is characterised by high morphological diversity with vacuolar, granular, amoeboid and cyst forms. Because of this great variation in morphology and cell size it is difficult to determine the universal diagnostic standards.

The aim of this study was to determine the prevalence of *B. hominis* in stool specimens from HIV-positive and HIV-negative patients in Lower Silesia, Poland.

A total of 75 and 34 faecal samples from HIV-positive and HIV-negative patients, respectively, were analysed using microscopic techniques (direct smear microscopy) as well as molecular methods (PCR). *B. hominis* was found in 39 study participants. Infection rates for *Blastocystis* were 38% (29/75) and 29% (10/34) in HIV-positive and HIV-negative patients, respectively. Molecular subtyping revealed subtype (ST) 3, which is the predominant ST found in humans.

This preliminary study shows high prevalence of *B. hominis* in both HIV-positive and HIV-negative patients and indicate, that patients with immunodeficiency, should be thoroughly examined for intestinal parasites as they could develop serious clinical complications.

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