

Blastocystis spp. infection in young people in Poland

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Blastocystis are unicellular organisms inhabiting large intestine of various vertebrates. The species belonging to *Blastocystis hominis* sensu lato complex are a component of the microbiomes of warm-blooded vertebrates including humans.

According to the published data the prevalence of *B. hominis* s. l. in Poland is between a few and a dozen percent of the human population.

MATERIAL AND METHODS. Stool samples from volunteers were investigated. Total of 384 persons: 140 males, 242 females and 2 volunteers who did not report their gender . Average age of the volunteers was 23 years and the median was 21 years. The subtypes of *Blastocystis* were determined based on the nucleotide sequences of ribosomal RNA small subunit. *Blastocystis* subtype nomenclature follows that of Stensvold *et al.* (2007).

RESULTS AND DISCUSSION. *B. hominis* s. l. was detected in the samples collected from 10% of the volunteers (39 persons). There were no differences in the prevalence between males and females. In 11 genotyped isolates (out of 39 isolates) the following genotypes were detected: ST1, ST2, ST3, ST7. The results of our investigations indicate that a relatively large part of the population of young people in Poland hosts *B. hominis* s. l. and that there is high degree of diversity of the detected *B. hominis* s. l. genotypes. Previously the genotype ST6 was detected in humans and chickens in Poland. The human infections with *B. hominis* s. l. genotypes ST6 and ST7 are probably zoonotic infections.

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