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Genotypes of *Blastocystis* isolated from Polish patients: a case of *Blastocystis hominis* sensu lato (subtype 6) infection

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Stool samples were collected from patients ordering parasitological examination of faeces in the Laboratory of Parasitology of the National Institute of Public Health – National Institute of Hygiene. The microscopic examination of fresh stool smears was performed by using saline and Lugol's iodine wet mount procedure. *Blastocystis*-positive samples were used to establish xenic *in vitro* culture (XIVC) using a modified Jones' medium. The DNA was extracted from XIVC using QIAamp DNA Mini Kit according to manufacturer's recommendations and stored at −20 °C until analysed. Gene fragment of SSU-rRNA was amplified with forward primer RD5 (5′-ATCTGGTTGATCCTGCCAGT-3′) and reverse primer BhRDr (5′-GAGCTTTTTAACTGCAACAACG-3′). The PCR products were purified and subjected to automated Sanger sequencing of both strands. The obtained sequences were uploaded to the *Blastocystis* Sequence Typing website (http://pubmlst.org/blastocystis) to determine ST of each isolate. Our results show that four individuals were positive for *B. hominis* sensu lato. Molecular subtyping revealed that 3 of *Blastocystis* isolates were ST3 (GenBank nos. KU684644–KU684646), and 1 was ST6 (KU684642, KU684643). In the previous studies Kotłowski (2012) using Sequence Tagged Site Technique had confirmed presence in Poland of the ST1, ST2, ST3, and ST4 subtypes. We are presenting the results of the first molecular analysis of *Blastocystis* subtypes in Poland with the use of SSU-rDNA Sequence-Based Identification. The ST6 genotype of *B. hominis* s. l. has been for the first time detected in our country. This subtype is rarely recorded in humans and is believed to be more associated with birds.