

Genotype characterisation of *Blastocystis* isolates from Polish patients – preliminary results

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Faecal samples were obtained from the Laboratory of Parasitology of the National Institute of Public Health (National Institute of Hygiene) for *in vitro* cultivation of *Blastocystis* followed by DNA extraction. All samples were provided by patients who ordered parasitological examination. Fresh stool smears were subjected to microscopic screening using saline and Lugol's iodine wet mount procedure. The *Blastocystis*-positive samples were used to establish an axenic *in vitro* culture maintained in modified Jones' medium. The DNA was extracted from culture using a QIAamp DNA Mini Kit according to the manufacturer's recommendations. A gene fragment of SSU-rRNA was amplified with forward primer RD5 (Clark, 1997) and reverse primer BhRDr (Scicluna *et al.*, 2006). The PCR products were purified and subjected to automated Sanger sequencing of both strands.

Six individuals (data from May 2016) were positive for *B. hominis* sensu lato. Four *Blastocystis* isolates were classified as ST3, one as ST2 and one as ST6. By using the Sequence Tagged Site Technique, Kotłowski (2012) confirmed the presence of the ST1, ST2, ST3, and ST4 subtypes in Poland.

Our results represent the first molecular analysis of *Blastocystis* subtypes in Poland based on SSU-rDNA Sequence-Based Identification. This is the first detection of the ST6 genotype of *B. hominis* sensu lato in Poland. As this subtype is rarely recorded in humans and is believed to be more associated with birds, our results give a greater insight concerning the possible zoonotic potential of the ST6 genotype. However, further detailed studies are required to confirm the avian origin of this strain in human patients.