LETTER TO THE EDITOR

CURRENT STATUS OF Blastocystis TERMINOLOGY

February 27, 2009

Sir.

It is noticeable the continuous usage of the “Blastocystis hominis” term on current scientific communications and I would like to take this opportunity to comment on the status of the nomenclature of this common gastrointestinal parasite.

Since its discovery, Blastocystis was a point of controversy, being first classified as a yeast then as a Protozoarian, until its recent reclassification into the Chromist or Stramenophila kingdom. The term Blastocystis hominis was first used by Brumpt almost 100 years ago and since that time it has been used universally to designate this unicellular parasite found in the human gastrointestinal tract.

With the use of new technology as the analysis of its ssRNA and the elongation factor 1α (EF-1α) gene sequences, it has been revealed 10 Blastocystis subtypes known to date, which may account for the disparities of previous data when assessing its morphology, life cycle and pathogenic role. What is more, current epidemiological and experimental data demonstrate the poor host specificity of Blastocystis and now is known its transmission from human-to-human, animal-to-human, human-to-animal and animal-to-animal. As a result previous denominations restricted to species such as Blastocystis galli for isolates from chickens, B. anatis from domestic ducks, B. anseri from domestic geese, etc. are proven inefficient.

For this reason, in a consensus published on 2007, the use of the term Blastocystis sp. followed by a subtype (from 1 to 10) was proposed for mammal and avian isolates, including those isolated from humans. Therefore, due to the extreme genetic diversity among Blastocystis isolates and until new evidence is presented, the use of the term Blastocystis sp. should be encouraged when referring to isolates from human samples.

Table 1

Blastocystis subtype distribution identified in non-human primates, other mammals, birds and humans. Adapted from PARKAR et al.

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<thead>
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<th>HOST GROUP</th>
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<th>ST5</th>
<th>ST6</th>
<th>ST7</th>
<th>ST8</th>
<th>ST9</th>
<th>ST10</th>
<th>ST Unknown</th>
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<td>Horse/sheep/dog</td>
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REFERENCES


