

Detection of *Blastocystis* sp. with various Staining Method and Medium Culture on Sugar Glider (*Petaurus breviceps*) in Surabaya

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ABSTRACT

The biggest problem for veterinarian were the number of sudden death cases in the sugar glider. This was underlie the earlier preliminary research, and further research aimed to determine the effectiveness of staining and culture medium in diagnosing *Blastocystis* sp. on a sugar glider. The sample of this research were fresh stool from 100 of sugar glider in Surabaya. The fresh stool sample directly stained using Iodine, Methylene Blue, and Giemsa. Further, the samples were cultured on simple medium and RPMI 1640. Medium was observed daily to see the morphology of *Blastocystis* sp. The number of prevalence was very high rate of 100% with Methylene Blue and Giemsa staining, 94% prevalence of *Blastocystis* sp. with Iodine staining. The fresh stool sample were successfully cultured on RPMI 1640 for 5 days and simple medium for 6 days. The size of *Blastocystis* sp. was 0,38 – 2,95 μm (average 1,46 μm). The staining method that effective was staining with Methylene Blue which economical, easy to do, effective in terms of time, protozoa are clearly stained, and could be distinguished from other microorganisms. *Blastocystis* sp. that found on sugar glider commonly smaller than *Blastocystis* sp. that found on dog, cat, and *Blastocystis hominis* on human, but morphologically was same with *B. hominis*. Vacuolar form was predominated found in the fresh stool sample of sugar glider.

Key words : *sugar glider*, *Blastocystis* sp, culture, staining