Parasitemia in Natural Infection of *Leucocytozoon sabrazesi* in Chickens in Eastern Thailand

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**Introduction**

*Leucocytozoon sabrazesi* is a group of Haemosporozoa that can infect chickens and guinea fowl. The parasites have an indirect life cycle that involves *Cullicoides* spp. as vector. Reported symptoms of chickens infecting with *L. sabrazesi* were pyrexia, diarrhea, leg paralysis, discharge from the mouth and anemia. Identification of gamonts based on Giemsa-stained blood smear detection. This study aims to provide information on occurrences and elongates gametocytes density fluctuation.

**Materials and Methods**

This study was conducted during the winter of 2014 in Chonburi Province. Four layers were naturally infected with *L. sabrazesi* and a healthy layer was kept in mosquito nets to prevent re-infection without medication (1). Individual observed by monthly thin blood smear from all bird between 10.00 and 11.00 A.M. Three slides were prepared from brachial vein pierce and were stained with Giemsa staining procedure and then were examined with a light microscope by 100x magnification for standard period of five minutes (2). Gametocyte densities were recorded as the proportion of infected cells after counting 10,000 red blood cells (3).

**Results and Discussion**

The current investigate of natural *Leucocytozoon* infection showed elongated spindle shaped host cells containing of gametocytes with blood nuclei beside parasite. Based on the morphology, the parasites appeared to be *L. sabrazesi* as described previously (4) (Fig.1)

<table>
<thead>
<tr>
<th>No.</th>
<th>First Reading</th>
<th>30 days after</th>
<th>60 days after</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NF</td>
<td>NF</td>
<td>NF</td>
</tr>
<tr>
<td>2</td>
<td>0.5 (0)</td>
<td>NF</td>
<td>NF</td>
</tr>
<tr>
<td>3</td>
<td>2.1 (0.8)</td>
<td>1.2 (0)</td>
<td>0.7 (0.2)</td>
</tr>
<tr>
<td>4</td>
<td>2.5 (0.7)</td>
<td>1.8 (0.4)</td>
<td>2.1 (0)</td>
</tr>
<tr>
<td>5</td>
<td>9.3 (0)</td>
<td>8.5 (0)</td>
<td>NF</td>
</tr>
</tbody>
</table>

NF: Not found

**Figure 2** Averaged % gametocytes (±SD)

**Acknowledgements**

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**References**
