

Leish055- Kinetics of *Leishmania* dissemination from inflammatory site to draining lymph node

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Background: The mechanisms of *Leishmania* dissemination and the phagocyte populations capable of transporting the parasite and parasite molecules from the infection site to different tissues are still controversial. **Objectives:** In this work we use an experimental model of cell migration *in vivo* to study the dissemination of *Leishmania* from inoculation site to the draining lymph nodes. **Methodology:** *L. amazonensis* promastigotes were injected into the peritoneal cavity of Balb/c mice and cell cultures were done of cells collected from peritoneal cavity, lymph nodes, spleen and lungs, at 15min and 30min; 1h, 2h, 4h, 6h, 12h and 24h. Afterwards, we tested different cell labeling reagents (CFSE, biotin and GFP) in order to choose those that allows better discrimination of intact parasites (potentially alive) from degraded parasites (parasite molecules). In these experiments parasites were injected intraperitoneally and the draining lymph nodes were collected for analysis using a fluorescence microscopy. **Results:** Peritoneal cells and lymph nodes cultures were positive 15min to 6h after infection. Parasites were detected in splenic cells cultures 15min to 1h after infection. Lungs cultures were positive after 1h of infection or, less consistently, 15min and 30min after inoculation. Parasites were viewed in the draining lymph nodes 1h after infection inside of phagocyte cells and even outside of phagocytes in their promastigotes form. **Conclusions:** *Leishmania* dissemination from peritoneal cavity to the lymph node occurs in less than 30 minutes after injection. The transit to bloodstream occurs in the first hour of infection. Parasite transport from peritoneal cavity to the spleen may use an alternative pathway not involving thoracic duct. **Keywords:** *Leishmania*, lymph node, migration. **E-mail:** mhermida@aluno.bahia.fiocruz.br