EXPRESSION OF STROMAL CELL DERIVED FACTOR IN THE SPLEEN DURING RODENT MALARIA.

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In malaria, the clearance of parasitized red blood cells (pRBC) is dependent of spleen. During this infection, the spleen receives a large amount of deformed erythrocytes, which cause a congestion and interruption of spleen circulation. To promote cell migration and, consequently, increase its structure, the spleen starts to release many signals, as CXCL12/SDF-1alpha from stromall cells. We studied the expression of CXCL12/SDF-1alpha to define its importance in spleen amplification during rodent malaria. Chemokine immunohistochemistry was performed in spleen tissue of C57BL/6 mice infected with 10^6 pRBC of *Plasmodium chabaudi* CR (non-lethal), *P. chabaudi* AJ (lethal) and *P. berguei* ANKA (lethal). In non-lethal strain, we observed no change in morphology of the spleen during the expansion, but it was not found in lethal strains. The CXCL12/SDF-1alpha immunohistochemistry showed an increase of expression of this chemokine in red pulp during malaria infection in all models. In *P. chabaudi* infection, the AJ strain caused a lower chemokine expression than CR strain at the 6^{th} day p.i., while in *P. berghei* infection, the chemokine expression was higher than others strains, but with an irregular frequency. Our result showed a significant increase of expression of CXCL12/SDF 1-alpha during the infection when compared to the control group and it may indicate the CXCL12 as an important chemokine in parasitemia control of rodent malaria.