

The role of MBL in the infectious disease and atherosclerosis

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The study of animal lectin represents a challenge and a very exciting area of research. One of the most study animal lectin regarding the immune system is the mannose binding lectin (MBL). MBL is a collectin and is a key molecule of the innate immune system, acting as an opsonin, activator of complement system, and modulator of the inflammatory pathways. Polymorphisms in the MBL gene (*mb12*) affect the stability of this molecule and the oligomer formation, resulting in low plasma MBL levels that are associated with increased susceptibility to various infections but may be protective in other circumstances. Our group have been studying the levels of MBL and its genetic polymorphism in a several infectious diseases and in the atherosclerosis. Regarding dengue the total levels of MBL increase about 2.5 times during infection and there is an tendency of higher binding activity in the patients with dengue hemorrhagic fever than in dengue fever. Recently we have been investigating MBL in patients with HCV and HIV. For HCV the genotyping results shows a normal distribution of the genetic frequencies however the analysis of this frequencies in patients who have a sustained viral response after treatment are in progress. Another infectious disease investigated was leptospirosis which showed a very impressive result. We study two cohort of infected patients one in 2001 and 2002. The cohort of 2001 showed a severity of disease significantly higher comparing to 2002 cohort. This stuck of luck allowed us to associated the severity of disease and the levels of MBL in those cohorts. The MBL was significantly higher in patients of 2001 cohort, which had the worse symptoms comparing to the cohort of 2002, which had mild disease. Regarding atherosclerosis and HIV the research are in progress. Supported by **CNPq** and **FACEPE**.