Regulasi respons imun subyek di permukiman kumuh : studi imunitas seluler pada kultur sel darah yang distimulasi malaria, vaksin BCG dan LDL = Regulation of immune respons to people living in the slum area a study of celluler immunity on whole blood cultures stimulated malaria BCGb and LDL

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Abstrak

Introduction: Constant exposure to a variety of microorganisms in domestic environment plays an important role in the shaping of individual immune response mechanism, which can affect one's susceptibility to the diseases. The aim of the study to get an understanding how the exposure of microorganisms in the the different area where the people living might give a contribution to the profile and the regulation of the immune respons after stimulated to malaria, vaccine BCG and oxLDL antigents in PBMC and whole blood cultures, and to evaluate the character of T reg as a mediator to suppress the cell proliferation.
Methode: It is an in vitro experimental study performed at Laboratorium Terpadu, Faculty of Medicine Univertas Indonesia, Jakarta in 2013 2014. As a model of infectious diseases is used pathogenic antigents such as Plasmodium falciparum infected red blood cells malaria and bacille calmette gu rin BCG vaccine, and as a modell of inflammatory disease is used non a patonegic antigen, low density lipoprotein LDL . Whole blood cultures is done for 80 blood samples to know how the regulation of immune respons from people living a rural populatin. PBMC cultures is also done to explore macrophages after stimulated to malaria, BCG and LDL. PHA stimulated to the PBMC culture with and without T reg cells to evaluate the character of T reg. T regulatory cells perhaps play the important roles to suppress the immune respons to microorganisms was also done.
Results: The profile of the immune respons of the people living in the unslum area is significantly more inflamatif than that in the slum area. The ratio of pro anti inflammation cytokines TNF IL 10 of the people living in the unslum area is significantly higher than that in the slum area. This is marked by increasing of oxLDL accumulationis that is the important point of the low protection to oxLDL of the people living in the unslum area p 0.01 . T regulatory cell may suppress the proliferation in the PBMC culture for the people living in the slum area marked by increasing not only the expression of IL 10 cytokines but also the sum of T regulatory sells p 0.01 significantly.
Conclusion: The immune respons of the people living in the unslum area is more inflamatif and responsive to malaria, BCG vaccine and oxLDL. The character of macrophage of the people living in the slum area is marked by the low ratio of pro anti inflammation cytokines TNF IL 10 to malaria, BCG vaccine and oxLDLstimulations. T regulatory cell may suppress the proliferation in the PBMC culture for the people living in the slum.