Thesis Title Natural Killer Cells Activities and Level of $CD2^+$, $CD8^+$, $CD16^+$ Cells in Peripheral Blood of Human Cervical Cancer

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ABSTRACT

Natural killer cells are one of the immunological cells functioned in non MHC restricted cytolysis. They play the important roles in immunological surveillance mechanism against cancer progression. In Thailand, cervical cancer is frequently found in 35 or more years old women. There are various stages of cervical cancer according to their direct extension and metastasis. This study tries to compare both qualitative and quantitative properties of Natural killer cells and T cells in peripheral blood of 4 stages of cervical cancer. The conventional ^{51}chromium microcytotoxic assay to study natural killer cell activity and alkaline phosphatase antialkaline phosphatase (APAAP) staining using monoclonal antibody to CD2, CD8 and CD16 were done. The results show

significant reduction ($P<0.05$) in natural killer cell activity of all 4 stanges of the patients from normal women. Nevertheless, percentage of $CD2^+$, $CD8^+$, and $CD16^+$ cells are not significant different ($P>0.05$) from those of comparing normal group. The preliminary study of the in vitro activation of natural killer cell activity by PHA-P, demonstrates the more enhancement of NK cell activity in the group of cervical cancer subjects than normal women subjects. In conclusion, this study shows that the NK cell activities of all 4 stages of cervical cancer are reduced which are possibly activated in vitro by PHA-P. However, there are no quantitative changes of $CD2^+$, $CD8^+$ and $CD16^+$ cells.