

**Thesis Title** Incidence of Lymphocytotoxic Antibodies  
in Thai Pregnant Women

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**Degree** Master of Science (Medical Technology)

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**Date of Graduation** 3 June B.E. 2534 (1991)

#### ABSTRACT

Knowledge of HLA (Human Leukocyte Antigen) has been studied for a long time. It was completely accepted that they played the major roles in organ transplantation, allotransfusion of blood components and regulation of the immune response etc. Although HLA is very important in many ways, but few institutes in Thailand by this time can afford and perform the HLA-testing because this kind of study requires sophisticated instruments, expensive reagents and well trained laboratory personels.

In order to reduce the cost, self-prepared HLA antisera should come into account. Sera from parous women were the most suitable source of HLA antisera because they has been immunized only against a restricted number of HLA antigens. Anti-HLA were detected by lymphocytotoxicity test which has been accepted as the standard procedure. Eighty panel cells, whose HLA phenotype had previously been determined, were used in this study.

Of 400 pregnant sera studied, 85 (21.50 %) showed anti-HLA class I activity and 41 from 86 were able to be identified. The most common detectable anti-HLA class I was anti-HLA-A2. 288 of 400 (72 %) tested sera were found to be positive to HLA-class II antigens but only 34 were able to be characterized. The common detectable were anti-HLA-DR5, DR7 and DRw11.

The incidence of lymphocytotoxic antibodies among various age groups were not significantly different ( $p > 0.05$ ). But when the incidence of anti-HLA class I among the group of less than 20 years of age and the group of more than 30 years of age were compared, it was found that the incidence among the group of less than 20 years of age was significantly lower. The incidence of HLA antibodies rose as the frequency of pregnant increased, but there were no statistically significant differences ( $p > 0.05$ ). Furthermore the frequency of antibodies appeared to increase in the last trimester but no statistically significant difference was noted ( $p > 0.05$ ).

So we recommended that antibodies should be collected in pregnant women whose age ranged from 20-30 years and should be collected from multigravidous pregnant woman during the last trimester.