

CHAPTER 5

DISCUSSION

Most of the cases were men age between twenty and forty years. Twenty percent of the population were hemoglobin E. The prevalence of α -thalassemia 1 from this study was 2.44%, which is lower than Tanphaichitr V.S. et al⁽⁵⁾.

OFT alone has low sensitivity, while the combination of OFT and IC showed better sensitivity (81%) and specificity (98%) for the detection of α -thalassemia 1. Considering the simplicity of the methods, time consumption and the cost of the test, the combination of OFT with IC would be the most appropriate test. In previous report from Ling CK, et al⁽³³⁾ using the MCV and IC for screening 1,435 healthy Taiwanese people, the sensitivity and specificity of this combination test was 100 % and 82 % respectively.

The false negative rate was 19%, which means that the missed cases were high. The consequence of this matter were 25% risk of having affect fetus (Hemoglobin Bart's hydrops) if they married with α -thalassemia 1 trait. Because the 95% confidence interval of sensitivity is between 71-91%, the reduction of false negative rate can be achieved by improved technique and intensive personel training.

The capital and labour cost of the two alternatives were not significant diffence, but the material cost of PCR test was 6 times higher than the modified hemoglobin H inclusion test. If we used the laboratory and equipment we already had in the provincial hospital. We can also train the assistant technician to perform the test effectively. The total cost of this test should markedly reduced when compared with the PCR test. The recommendations before imprementation of the modified hemoglobin H inclusion test are improvement of laboratory technique and intensive training courses.