

CHAPTER 5

CONCLUSION

The serum haptoglobin phenotypes and levels were determined in Thai blood donors, pregnant women, patients with tropical diseases, i.e., malaria, hookworm, opisthorchiasis, infectious hepatitis, obstructive jaundice and other diseases. The frequency distribution of haptoglobin phenotypes in 213 Thai blood donors was found to be 1-1 (5.16%), 2-1 (40.85%) and 2-2 (53.99%). A mean value \pm S.D. of serum haptoglobin level in 159 male blood donors (89.18 ± 26.63 mg%) was not statistically different from that of 79 female blood donors (88.00 ± 29.22 mg%).

Serum haptoglobin phenotype was also determined in 213 pregnant women. The frequency distribution of haptoglobin phenotypes in these women was very much similar to that of the non-pregnant women. A mean value \pm S.D. of serum haptoglobin levels in 220 pregnant women (54.5 ± 31.5 mg%) was significantly lower than that of the non-pregnant women. ($P < 0.01$). This could be due to the haemodilution effect and the increased plasma estrogen level in pregnant women.

The frequency distribution of phenotypes of serum haptoglobin in patients with malaria was similar to that of the

normal subjects except it has an additional Hp 0 (31.93%). This type of serum haptoglobin indicated ahaptoglobinaemia or hypohaptoglobinaemia. A mean value of the serum haptoglobin levels in these patients (29.60 ± 31.59 mg%) was also significantly lower than that of the normal subjects ($P < 0.01$). This could be due to an increased intravascular haemolysis which has been shown to occur in malarial patients.

The distribution of haptoglobin types in 72 patients with malarial infection was in accordance with that of the normal subjects while a mean value \pm S.D. (74.90 ± 36.53 mg%) was lower than that of the normal subjects ($P < 0.01$).

The distribution of haptoglobin types and the serum haptoglobin levels were also determined in patients with opisthorchiasis, amoebic liver abscess, cirrhosis, infectious hepatitis, carcinoma of the liver, hepatoma and hepatomegally. The results of the distribution of haptoglobin types were the same as that of the normal subjects. Serum haptoglobin levels in these patients were usually lower than those of the normal subjects which could possibly be due to the impairment of the liver synthesis of haptoglobin or the increased intravascular haemolysis which may occur in those patients with liver diseases.