CHAPTER 8

SUMMARY AND CONCLUSION

- The present case control study was aimed to understand the association of various biochemical parameters with CAD in South Indian population.
- The study population comprised of 125 subjects (patients) with CAD and 125 subjects (controls) with absence of CAD confirmed by coronary angiogram, between the age group of 35-65 years, admitted in the Cardiac Care Centre of Sri Ramachandra Hospital, affiliated to Sri Ramachandra University, Chennai.
- The biochemical parameters such as fasting serum insulin and proinsulin levels, serum-insulin/proinsulin ratio, blood sugar and fasting lipid profile, inflammatory and cardiac bio markers, Na$^+$ K$^+$ ATPase, and Ca$^{2+}$ ATPase, were determined and their association with CAD in patients with and without Type 2 DM was examined.
- Serum insulin, hs-CRP, Lp(a), CLTI, apo B and apo B/apo A1 ratio positively correlated where as apo A1, Na$^+$ K$^+$ ATPase and Ca$^{2+}$ ATPase negatively correlated with CAD in patients with and without DM in comparison with the control and severity of CAD as assessed by SVD, DVD, TVD and Stenosis scores was found to be influenced by these biochemical parameters.
- The prevalence of metabolic syndrome was found to be higher in CAD subjects with Type 2 DM when compared to the non-diabetics without
Summary and Conclusion

CAD. There was a higher prevalence of MS among the smokers, in patients having FH-CAD and high degree of coronary artery stenosis.

- Our findings propose the usage of the following biomarkers - insulin, hs-CRP, Lp(a) CLTI, apo B, apo A1 and their ratio as stronger tools for predicting CAD risk.

- Cholesterol and lipoproteins being major risk factors, we now propose a new paradigm: “the lower the apo B, apo B/apo A1 ratio, hs-CRP and Lp(a) levels the safer from CAD risk”.

- This paradigm is more sensitive and specific, and indicates a better way to evaluate CAD risk.

- Extrapolation of our findings to different populations of varied life style necessitates identification of genetic factor and its influence on CAD.

- In conclusion, besides increased emphasis on lifestyle modification including diet, exercise, weight reduction and stress reduction, a periodical evaluation of the aforementioned risk factors will benefit prediction of CAD and therefore corrective measures to protect the population from CAD risks.