# EVALUATION OF Ox-LDL ANTIBODIES AS A MARKER FOR HIGH RISK OF CORONARY ARTERY DISEASE (CAD)

***Thesis***

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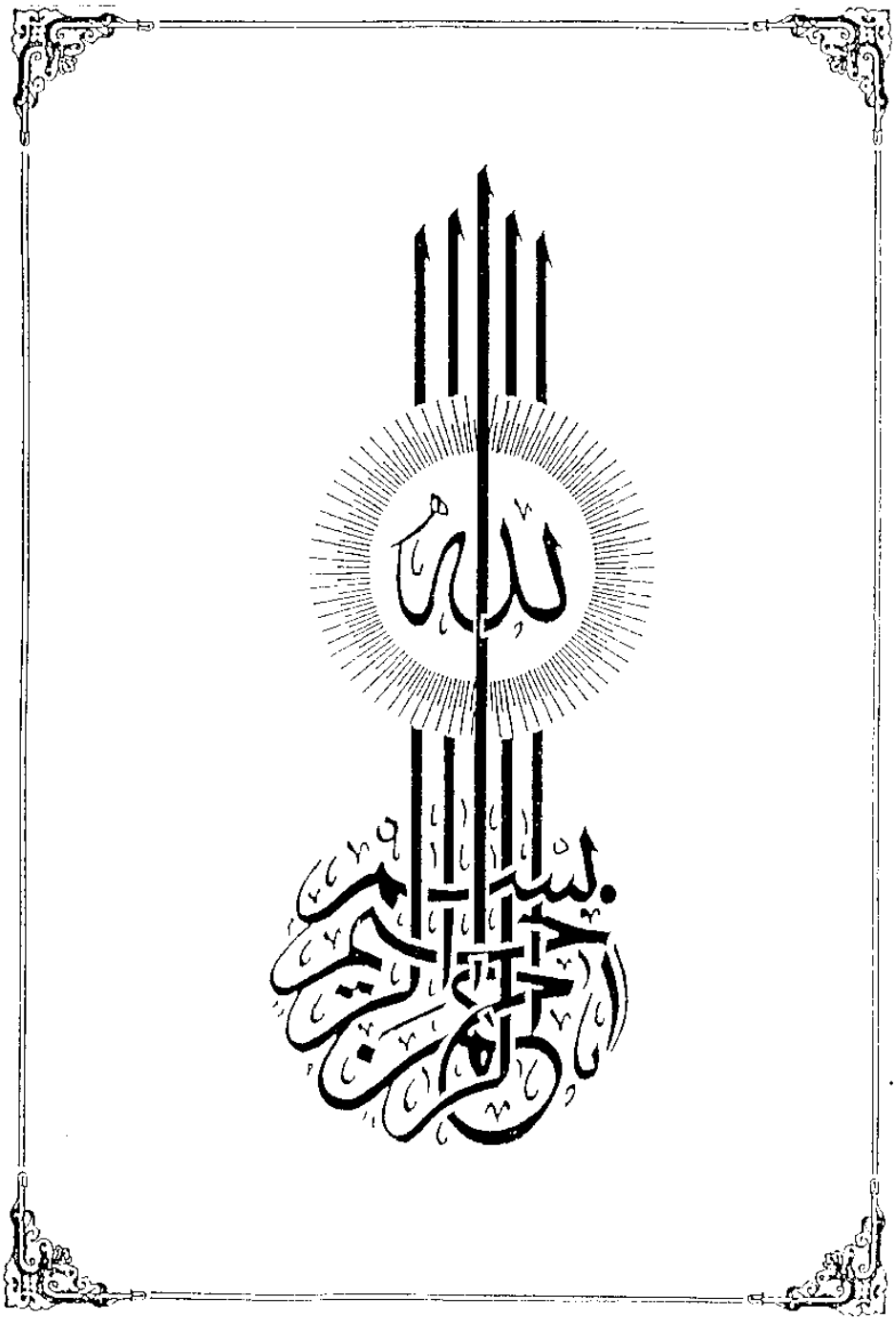

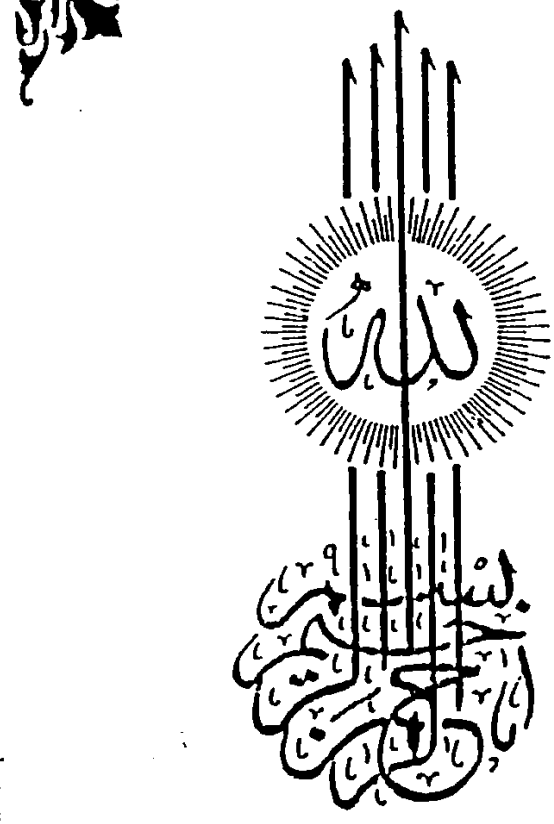

قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا
عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ.

صَدَقَ اللهُ الْعَظِيمُ
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## ABSTRACT

In this work in order to evaluate oxidized low density lipoprotein autoantibodies (o-LAB) as a marker for coronary atherosclerotic disease (CAD), lipid profile and o-LAB were assayed in 60 male subjects [who were classified according to their angiographic findings into mild CAD patients (n=17), moderate CAD patients (n=19), severe CAD patients (n=13) and normal control subjects (n=11)]. Total cholesterol (TC) and triglycerides (TG) analysis was done by an enzymatic colorimetric method. High density lipoprotein-cholesterol (HDL-C) was measured after precipitation of low density lipoprotein (LDL) and very low density lipoprotein (VLDL) in serum using phospho-tungestic acid. LDL-C was calculated using Friedwald formula and also TC/HDL-C ratio was calculated. o-LAB assay was done using an ELISA technique.

o-LAB was proved using Kruskal Wallis test to be the parameter which vary most significantly between the four groups, followed by LDL-C, TC and TC/HDL-C ratio. TG and HDL-C showed no statistical variations between the four groups.

Using Wilcoxon rank sum test to compare between ch two groups o-LAB was more discriminating between e different degrees of CAD, while TC, LDL-C and C/HDL-C ratio seemed to be higher in patients with evere CAD.

The results of ROC curve analysis for o-LAB revealed that 180 mU/mL cut off level is the most sensitive and specific point.

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# List of abbreviations

| | |
|---|---|
| *ADP* | *Adinosine diphosphate* |
| *BMI* | *Body mass index* |
| *CAD* | *Coronary atherosclerotic disease* |
| *CAS* | *Coronary atherosclerotic score* |
| *CD4* | *Cluster of differentiation 4* |
| *CD8* | *Cluster of differentiation 8* |
| *CHD* | *Coronary heart disease* |
| *EDRF* | *Endothelial derived relaxation factor* |
| *EGF* | *Epidermal growth factor* |
| *FCR* | *Fractional catabolic rate* |
| *FGF* | *Fibroblast growth factor* |
| *HDL-C* | *High density lipoprotein-cholesterol* |
| *IDDM* | *Insulin dependant diabetes mellitus* |
| *IDL* | *Intermediate density lipoprotein* |
| *LDL-C* | *Low density lipoprotein-cholesterol* |
| *M-CSF* | *Monocyte-colony stimulating factor* |
| *MCP-1* | *Monocyte chemotactic protein-1* |
| *MM-LDL* | *Minimaly modified low density lipoprotein* |
| *NIDDM* | *Non-insulin dependant diabetes mellitus* |
| *o-LAB* | *Oxidized-low density lipoprotein autoantibodies* |
| *Ox-LDL* | *Oxidized-low density lipoprotein* |
| *PDGF* | *Platelet derived growth factor* |
| *TC* | *Total cholesterol* |
| *TG* | *Triglycerides* |
| *TGF-β* | *Transforming growth factor-β* |
| *VLDL* | *Very low density lipoprotein* |

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