

List of contents

| Subjects | age No |
|--|-----------|
| Verse from Holy Quran | I |
| Dedication | II |
| Acknowledgments | III |
| English Abstract | IV |
| Arabic Abstract | V |
| List of Content | VI |
| List of tables | VIII |
| List of Figures | IX |
| List of abbreviations | X |
| Chapter One | |
| Introduction & Literature Review | |
| 1.1. Introduction | 1 |
| 1.2. Rationale | 3 |
| 1.3. Objectives | 4 |
| 1.3.1. General objectives | 4 |
| 1.3.2. Specific objectives | 4 |
| Chapter two | |
| Literature Review | |
| 2.1. Diabetes mellitus | 5 |
| 2.1.1. Classification of diabetes mellitus | 5 |
| 2.1.2. Pathogenesis of diabetes mellitus | 8 |
| 2.1.3. Signs and symptoms of diabetes mellitus | 9 |
| 2.1.4. Diagnosis of diabetes mellitus | 10 |
| 2.1.5. Monitoring of diabetes mellitus | 10 |
| 2.2. Gamma-glutamyl transferase | 10 |
| 2.3. Normal lipids metabolism | 13 |

List of tables

| Table No | Content | Page No |
|---------------|---|---------|
| Table (4.1) | Comparison of means and p.value of serum GGT,Cholesterol and Triglycerides concentration between study and control groups . | 20 |

List of Abbreviations

| Abbreviation | Name |
|--------------|--|
| ALT | ALanine Transferase |
| Anti-GAD | Anti-Glutamic Acid Decarboxylase |
| BMI | Body Mass Index |
| C | Cholesteryl |
| CAD | Coronary Artery Disease |
| CVD | CardioVascular Disease |
| CYM | Chylomicrons |
| DG | Diacylglycerols |
| D.M | Diabetes Mellitus |
| FFA | Free Fatty Acids |
| FPG | Fasting Plasma Glucose |
| GGT | Gamma Glutamyl Transferase |
| HDL | High Density Lipoprotiens |
| HSL | Hormone Sensitive Lipase |
| ICA | Islet Cell Cytoplasm |
| IDDM | Insulin Dependent Diabetes Mellitus |
| IGT | Impaired Glucose Tolerance |
| LDL | Low Density Lipoprotiens |
| MG | Monoacylglycerols |
| MRDM | Malnutrition Related Diabetes Mellitus |

| | |
|-------|---|
| NAFLD | Non Alcoholic Fatty Liver Disease |
| NIDDM | Non Insulin Dependent Diabetes Mellitus |
| OGTT | Oral Glucose Tolerance Test |
| SD | Standard Deviation |
| TG | Triacylglycerol |
| VLDL | Very Low Density Lipoproteins |