Clinical Studies on Diabetic And Non- Diabetic Patients with Respect to Lipid Profile Test

Prasanna K S[1], Suma B C[2], B M Sreenivasa[3], Punith Kumar Ms[4]

[1,2,3]Assistant Professor, Res Kanakapura
[4]Researcher, Jain University

ABSTACT

Introduction; Dyslipidemia is one of the major cardiovascular disease (CVD) risk factors and plays an important role in the progress of atherosclerosis. The prevalence of Dyslipidemia in type 2 diabetes is double with respect to the general population. These are more complex abnormalities that are caused by the interrelation among obesity, insulin resistance and hyper insulin. It is worth to emphasize that the fatty tissue is exclusively related to risk factors, such as the altered insulin and lipid profile, which can contribute to the development of the insulin resistance syndrome, which comprises several risk factors for the emergence of cardiovascular complications. In patients with type 2 diabetes, which is equivalent most commonly characterized by elevated TG and reduced HDL-C. These abnormalities can be present alone or in combination with other metabolic disorders.

Material and Method : This project was conducted by the department of Biochemistry at Asian Diagnostic lab from two month period of time on 300 patients belongs **Bangalore urban district (kalasipalya)** were Selected. Blood glucose, lipid profile, kidney function and liver function estimation was done by Uv test of Enzymatic reference method. **COBASc311 ANALYSE** Roche/Hitachi Cobas c 311 analyzer is an automated software controlled system for clinical chemistry analysis both qualitative and quantitative analysis determination.

Keywords; Diabetic patients, Dyslipidemia, High sugar level, High Cholesterol .

Hexokinase catalyses the phospharylation of glucose to glucose-6 phosphate. **Glucose-6-phosphate dehydrogenase** is oxidizes glucose 6 phosphate in the presence of NADP to give glucoranate 6 phosphate and NADPH.The rate of NADPH is directly proportional to glucose concentration.

COBAS c 311 ANALYSER

1) Roche/HitachiCobasc311 analyzer is an automated software controlled system for clinical chemistry analysis both qualitative and quantitative analysis determination. Perform photometric assay and ISE measurement
2) Uses, serum, plasma, sample.

Cobasc 311 analyzer have two unit they are,Analytical unit : Perform the measurement Control unit : Control and monitor the complete analytical processes and output measurement result and support maintain the function. This analyzer 300 in vitro sample (test) per hour and it consist of 3 system include Sampling system, Reagent system ,Reaction disk system.
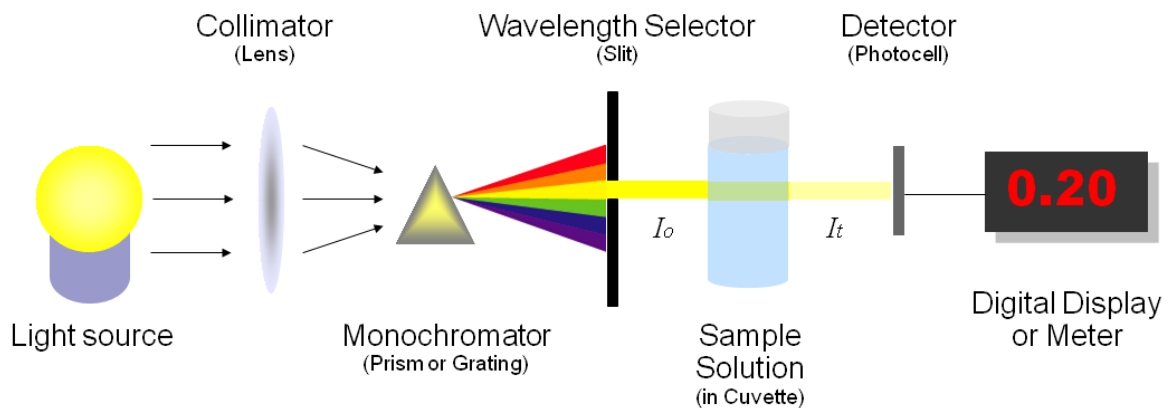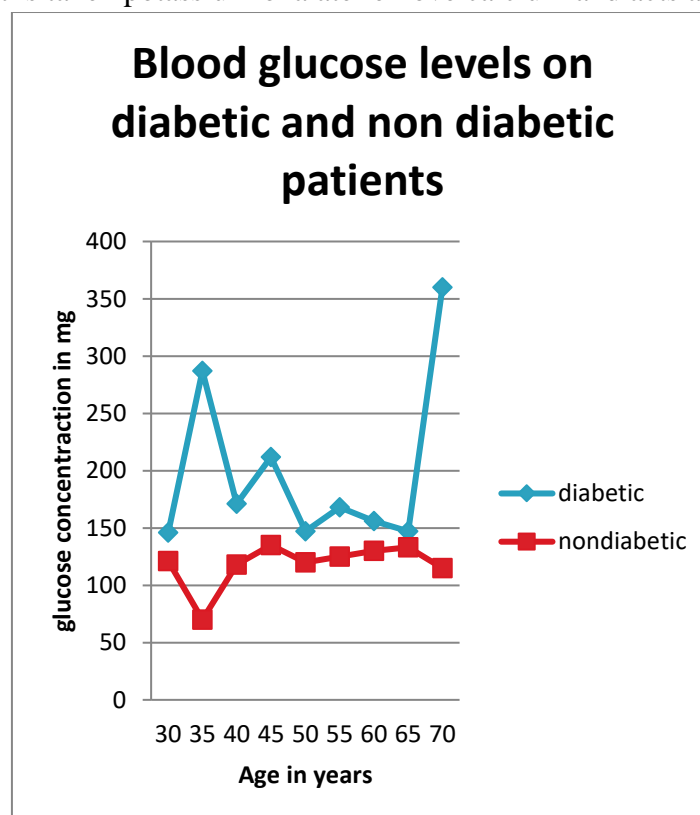
PHOTOMETRY Cobas c 311 analyzer is equipped with photometer to measure the absorbance of the reaction mixture in the reaction cell. The photometer lamp is located against the inner ring of the incubator bath beneth the reaction disk. The detector is outside the incubator bath ring near the cell rinse unit.
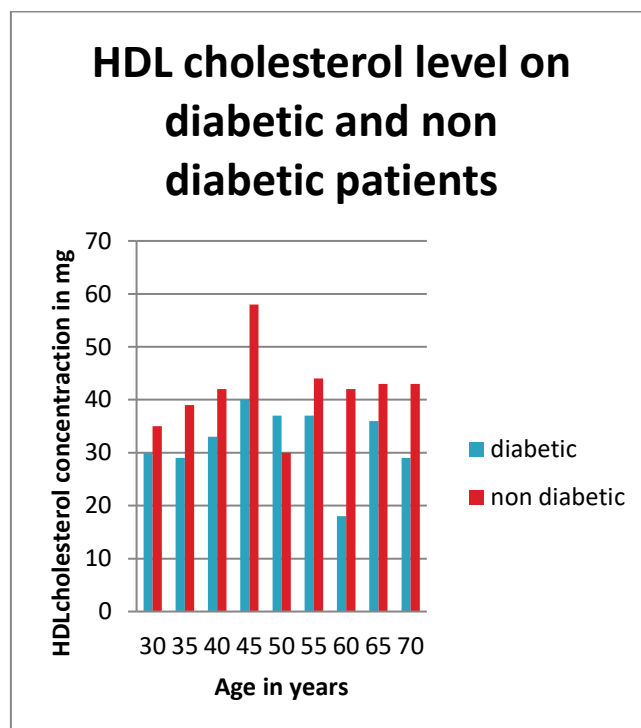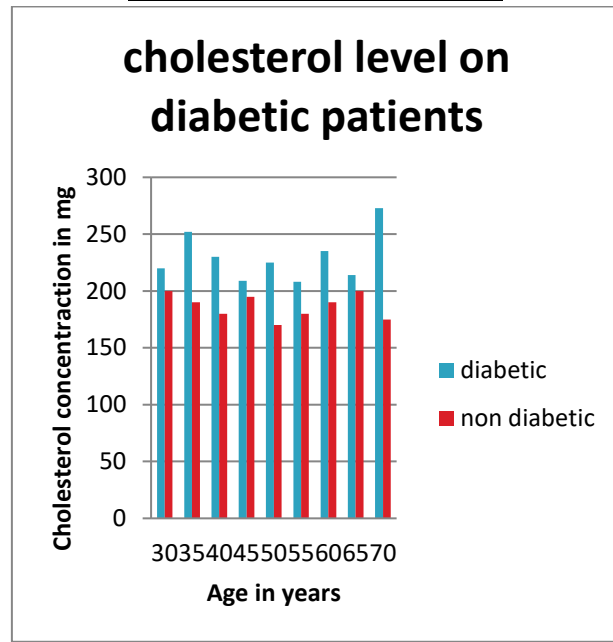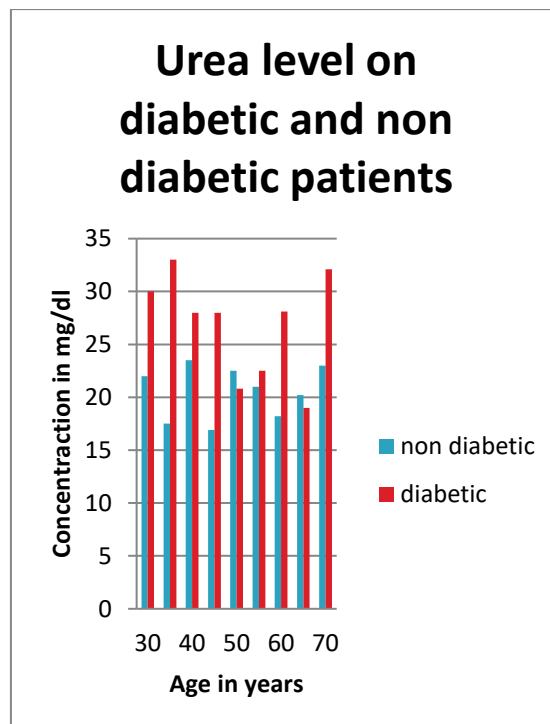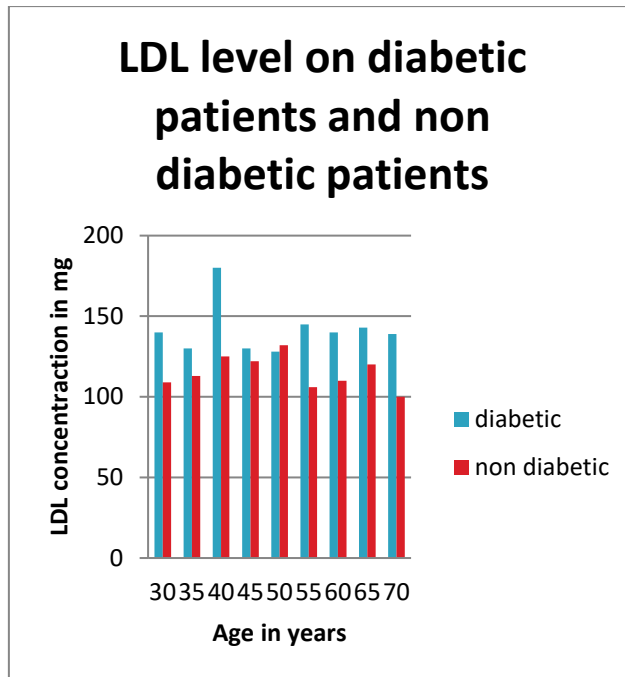
MATERIAL AND DATA COLLECTION
GLUCOSE ESTIMATION

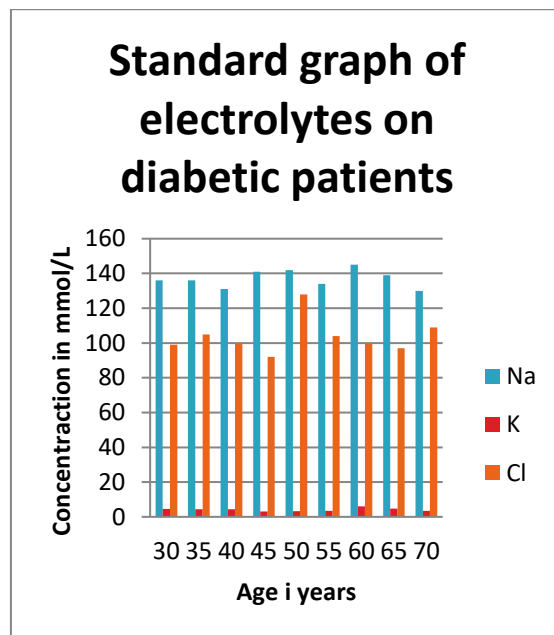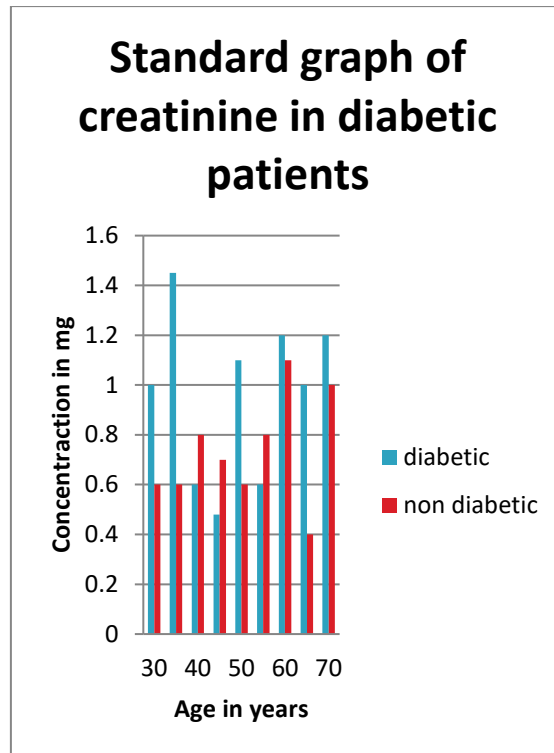3ml of blood was collected in sodium fluoride tubes (grey cap) contain addictive potassium oxalate and sodium oxalate which acts as a anti glycolytic agent to ensure that no further glucose break down occurs within the sample after it is taken potassium oxalate remove calcium and acts as anticoagulant

TOTAL CHOLESTEROL:

LDL level on diabetic patients and non diabetic patients

Urea level on diabetic and non diabetic patients

Standard graph of creatinine in diabetic patients

Standard graph of electrolytes on diabetic patients

Conclusion:

Lipid profile test**,**It is concluded from the results of the present study that type 2 diabetics were either overweight or type I obese ,more than 45year both Men and Women, Dyslipidemia was very common. Results strongly suggest that further investigations should relate the effects of Dyslipidemia and abnormalities of insulin resistance in type 2 diabetics. And ethnic specific patterns of lipid profile in type 2 diabetics regardless of their glucose levels, suggesting

Result:

Among the control i.e.Non diabetic patients,75% of them had total cholesterol in the normal ranges and high cholesterol level were observed in only 25%of them. Among women population, only 33% of the diabetic and 67% of non diabetic. Low HDL levels were seen in 49% males and 54% females patients who were diabetic. the study shows Female have more diabetic than male.

CONCLUSION

It is concluded from the results of the present study that type 2 diabetics were either overweight or type I obese and Dyslipidemia was very common. Results strongly suggest that further investigations should relate the effects of Dyslipidemia and abnormalities of insulin resistance in type 2 diabetics. And ethnic specific patterns of lipid profile in type 2 diabetics regardless of their glucose levels, suggesting that ethnic-specific strategies and guidelines on risk assessment and prevention of CVD due to Dyslipidemia are required. This showed that every patient had at least one type of Dyslipidemia. Overall diabetes mellitus is closely associated with Dyslipidemia in both IDDM and NIDDM.ie Increased LDL level and decreased HDL level

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Lipid profile

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