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## LIPID PROFILE AMONG DIABETIC AND NON-DIABETIC PEOPLE

**Abstract:** *Objective: This study was conducted to determine alteration in lipid profile among people with diabetes and without diabetes.*

*Duration and Setting: Study was started in January 2018 and completed in December 2018 comprising on duration of one year. Study was conducted in Mayo Hospital Lahore. This is a tertiary care hospital located in center of city dealing with a huge number of patients on daily basis.*

*Study design: This is a cross sectional study of observational type.*

*Patients and Methods: Total 300 cases were included in this study. Two groups were formed. In one group 150 diabetic cases were included and in other group 150 non-diabetic cases were placed. Blood sample of 2cc was collected from all cases and sent for test of serum lipid profile level to the laboratory in the study institution. Results were documented. Data was analyzed on Microsoft office and SPSS software. Results were calculated in the form of frequencies and percentage and presented via tables and graphs. Consent was taken from all cases for including them in the study and permission was also taken from the ethical committee of the institution for conduction study.*

*Results: There were total 300 cases in this study comprising on 150 diabetic and 150 non-diabetic cases. Age range of cases was 25-65 years with mean age of 45 years. Increased level of triacylglyceride was reported in 125(83%) diabetic cases out of 150 total diabetics and 45(30%) cases out of 150 non-diabetic cases. Increased level of Cholesterol was reported in 100(66.7%) diabetics and 30(20%) non-diabetics. HDL was found decreased in 85(56.7%) diabetic cases and 25 non-diabetic cases. LDL was increased in 110 diabetic cases and 55 non-diabetic cases. Triacylglycerides are increased in most of the diabetic people and HDL level was decreased.*

*Conclusion: Diabetic patients have increased level of lipids in their blood as compared o non-diabetic people. Due to this metabolic derangement diabetics have more risk of heart disease and other risk factors as well.*

**Key words:** Diabetes Mellitus, Cholesterol, Lipid profile, HDL, LDL.

**Language:** English

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### Introduction

Diabetes mellitus is a very common disease worldwide. In Pakistan it has high prevalence as well. Dibetic people have deranged metabolic profile such as increased blood cholesterol level, increased TAG and LDL level and decreased good cholesterol HDL level. These metabolic abnormalities cause many cardio vascular diseases and increase morbidity and mortality in diabetic patients. Diabetic patients have increased level of lipids in their blood as compared o non-diabetic people. Due to this

metabolic derangement diabetics have more risk of heart disease and other risk factors as well. Dibetic people have deranged metabolic profile such as increased blood cholesterol level, increased TAG and LDL level and decreased good cholesterol HDL level. These metabolic abnormalities cause many cardio vascular diseases and increase morbidity and mortality in diabetic patients. Control of blood cholesterol level within normal range can prevent from many diseases.

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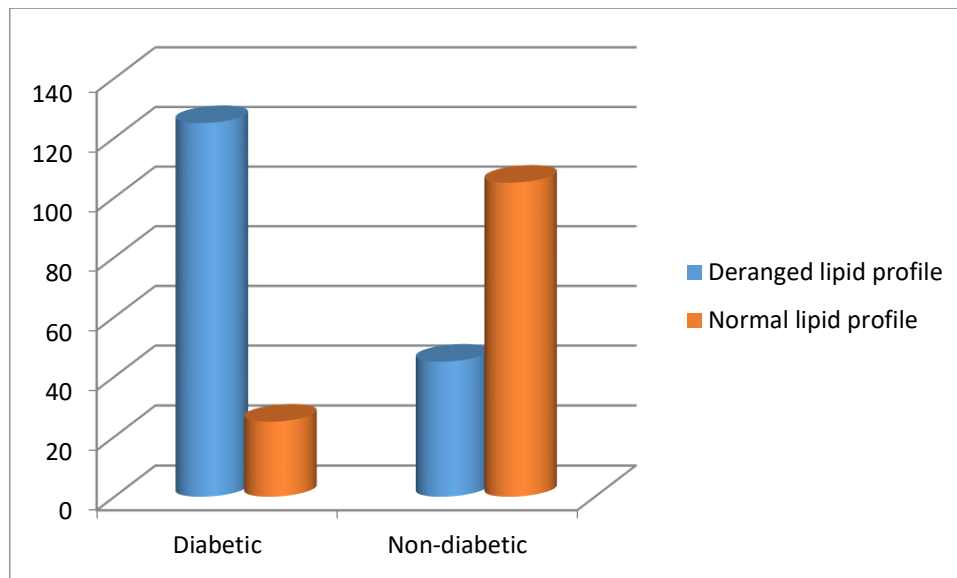
### Patients and Methods

This is a cross sectional type of observational study conducted in a tertiary care hospital of Lahore, a city of Pakistan. This study was completed in duration of one year. Total 300 cases were included in this study. Two groups were formed. In one group 150 diabetic cases were included and in other group 150 non-diabetic cases were placed. Blood sample of 2cc was collected from all cases and sent for test of serum lipid profile level to the laboratory in the study institution. Results were documented. Data was analyzed on Microsoft office and SPSS software. Results were calculated in the form of frequencies and percentage and presented via tables and graphs. Consent was taken from all cases for including them in the study and permission was also taken from the ethical committee of the institution for conduction study. Data of both groups was calculated and then compared with each other and conclusion made.

### Results

There were total 300 cases in this study comprising on 150 diabetic and 150 non-diabetic

cases. This is a cross sectional type of observational study conducted in a tertiary care hospital of Lahore, a city of Pakistan. This study was completed in duration of one year. Age range of cases was 25-65 years with mean age of 45 years. Increased level of triacylglyceride was reported in 125(83%) diabetic cases out of 150 total diabetics and 45(30%) cases out of 150 non-diabetic cases. Increased level of Cholesterol was reported in 100(66.7%) diabetics and 30(20%) non-diabetics. HDL was found decreased in 85(56.7%) diabetic cases and 25 non-diabetic cases. Consent was taken from all cases for including them in the study and permission was also taken from the ethical committee of the institution for conduction study. Data of both groups was calculated and then compared with each other and conclusion made. LDL was increased in 110 diabetic cases and 55 non-diabetic cases. Triacylglycerides are increased in most of the diabetic people and HDL level was decreased.



Picture 1.

### Discussion

Diabetic people have deranged metabolic profile such as increased blood cholesterol level, increased TAG and LDL level and decreased good cholesterol HDL level. These metabolic abnormalities cause many cardio vascular diseases and increase morbidity and mortality in diabetic patients. This is a cross sectional type of observational study conducted in a tertiary care hospital of Lahore, a city of Pakistan. This study was completed in duration of one year. Total 300 cases were included in this study.

Two groups were formed. In one group 150 diabetic cases were included and in other group 150 non-diabetic cases were placed. Blood sample of 2cc was collected from all cases and sent for test of serum lipid profile level to the laboratory in the study institution. Results were documented. Data was analyzed on Microsoft office and SPSS software. Results were calculated in the form of frequencies and percentage and presented via tables and graphs. Diabetic patients have increased level of lipids in their blood as compared to non-diabetic people. Due

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to this metabolic derangement diabetics have more risk of heart disease and other risk factors as well. There were total 300 cases in this study comprising on 150 diabetic and 150 non-diabetic cases. This is a cross sectional type of observational study conducted in a tertiary care hospital of Lahore, a city of Pakistan. This study was completed in duration of one year. Age range of cases was 25-65 years with mean age of 45 years. Increased level of triacylglyceride was reported in 125(83%) diabetic cases out of 150 total diabetics and 45(30%) cases out of 150 non-diabetic cases. Increased level of Cholesterol was reported in 100(66.7%) diabetics and 30(20%) non-diabetics. HDL was found decreased in 85(56.7%) diabetic cases and 25 non-

diabetic cases. Consent was taken from all cases for including them in the study and permission was also taken from the ethical committee of the institution for conduction study. Data of both groups was calculated and then compared with each other and conclusion made. LDL was increased in 110 diabetic cases and 55 non-diabetic cases. Diabetic people have deranged metabolic profile such as increased blood cholesterol level, increased TAG and LDL level and decreased good cholesterol HDL level. These metabolic abnormalities cause many cardio vascular diseases and increase morbidity and mortality in diabetic patients. Control of blood cholesterol level within normal range can prevent from many diseases.

## References:

1. Mitchell, S. C., Korones, S. B., & Berendes, H. W. (1971). Congenital heart disease in 56, 109 births. Incidence and natural history. *Circulation*, 43, 323-32.
2. Dolk, H., Loane, M., & Garne, E. (2011). For the European Surveillance of Congenital Anomalies (EUROCAT) working Group. Congenital heart defects in Europe: prevalence and perinatal mortality, 2000-2005. *Circulation*, 123, 841-9.
3. Samanek, M., & Voriskova, M. (1999). Congenital heart disease among 815,569 children born between 1980 and 1990 and their 15 year survival: a prospective Bohemia survival study. *Pediatr Cardiol*, 20, 411-17.
4. Wren, C., Richmond, S., & Donaldson, L. (1999). Presentation of congenital heart disease in infancy: implications for routine examination. *Arch Dis Child Fetal Neonatal Ed.*, 80, 49-53.
5. Hassan, I., Haleem, A. A., & Bhutta, Z. A. (1997). Profile and risk factors for congenital heart disease. *J Pak Med Assoc*, 47, 78-81.
6. Chadha, S. L., Singh, N., & Shukla, D. K. (2001). Epidemiological study of Congenital heart disease. *Indian J Pediatr*, 68, 507-510.
7. KC, M. B., Sharma, D., & Shrestha, M. P. (2003). Prevalence of rheumatic and congenital heart disease in school children of Kathmandu valley in Nepal. *Indian Heart J*, 55(6), 615-618.
8. Shah, G. S., Singh, M. K., Pandey, T. R., Kalakheti, B. K., & Bhandari, G. P. (2008). Incidence of congenital heart disease in tertiary care hospital. *Kathmandu Univ Med J*, 6(1), 33-36.
9. Khalil, A., Agarwal, R., & Thirupuran, S. (1994). Prevalence of congenital heart disease among hospital live births in India. *Indian Pediatr*, 31, 519-526.
10. Mollah, M. A. H., Begum, N. A., & Islam, M. N. (2002). Clinical profile of congenital heart diseases (CHD): an Analysis of 218 cases. *Bangladesh Heart J*, 17, 62-67.
11. Ferencz, C., Rubin, J. D., & Meconter, R. J. (1985). Congenital Heart Diseases. Prevalence at live birth. The Baltimore Washington infant study. *Am J Epidemiol*, 121, 31-36.
12. Shah, G. S., Singh, M. K., & Pandey T. R., Kalakheti, B. K., & Bhandari, G. P. (2008). Incidence of congenital heart disease in tertiary care hospital. *Kathmandu Univ Med J*, 6(1), 33-36.
13. KC, M. B., et al. (2003). Prevalence of rheumatic and congenital heart disease in school children of Kathmandu valley in Nepal. *Indian Heart J*, 55(6), 615-618.
14. Islam, M. N., et al. (2013). Prevalence of congenital Heart Disease in Neopnatal in a Tertiary Level Hospital. *NJMS*, 2(2), 91-95.
15. Rahman, S., Ahmed, M. N., & Rahmatullah, K. H. I. (1992). The prevalence of congenital heart diseases diagnosed by Non-invasive technique-Ten years study in Bangladesh. *DS (Child) HJ*, 8, 5-15.
16. Siddique, F. M., Kamal, S. M. M., & Huq, K. M. H. S. S. (1989). Clinical presentation of congenital heart diseases in hospitalized patients. *Bangladesh Heart J*, 4, 13-17.
17. Hoffman, J. I. E. (1990). Congenital heart disease: Prevalence and inheritance. *Pediatr Clin North Am*, 37, 25-43.