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## A study of biochemistry profile of active and inactive type II male diabetic patients

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### Abstract

The purpose of the present study was to compare biochemistry profile of active and inactive type II male diabetic patients. The present investigation has been conducted on 40 subjects. Out of them twenty were active diabetic patients and twenty were inactive diabetic patients from Patiala district only. The blood sample was taken for checking the fasting blood glucose and cholesterol. To analysis the computed scores of all groups of biochemical 't' test was applied. Then data was interpreted to find out the significant difference of fasting blood sugar and insignificant difference of cholesterol level of active and inactive type II male diabetic patients.

**Keywords:** Diabetes, active, inactive, fasting blood sugar, cholesterol

### 1. Introduction

The combating gigantic problem of communicable diseases, like many developing nations, India is also facing the new problem of chronic non-communicable diseases such as Diabetes because of rapid estate and adaptation of modern life-style. After Hypertension, Diabetes mellitus is one of the most daunting difficulties posed by chronic non-communicable disease. Although many prevention and control measures are available, prevalence of Diabetes is rising and it has become a global problem triggering enormous morbidity and mortality in all developed as well as developing countries. In 2000, World Health Firm, at least 171 million people worldwide suffers from diabetes. The prevalence of diabetes mellitus type II mellitus is steadily increasing worldwide with an estimated 366 million patients in 2030. Type II DM is the commonest form of diabetes globally as well as in India. The frequency of diabetes indicates increasing trend in the previous 30 years in India. The number of men and women with diabetes in India at the moment around 40. 9 million expected to climb to 69. 9 millions by 2025 unless immediate preventive steps are considered. In type II diabetes, if progress is not prevented it causes multi-organ failure. There is still no magic pill that can cure diabetes.

### 2. Methods and Materials

#### 2.1. Subjects

Forty subjects have been recruited for the study. 20 active male, 20 inactive male were recruited as subjects. After that the researcher will take the blood sample of the subjects. These subjects will be exposing to selected biochemistry variables.

- I. Fasting Blood Sugar (FBS)
- II. Serum cholesterol

#### 2.2. Tool Used

1. Erba Chem – 5 V<sub>2</sub> Plus Analyzer
2. Incubator
3. Centrifuge Machine
4. Needle Cutter
5. Test Tubes (Ria vials)
6. Disposable Syringes
7. Cotton
8. Spirit

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9. Test tube Stands
10. Distilled water
11. Hypochlorite Solution (HCL)
12. Tourniquet
13. Auto Pipettes
14. Micro Tips

**2.3. Statistical Analysis**

In order to find out the “a study of biochemistry profile of active and inactive type II male diabetic patients” after collecting the data paired t- test was applied. Where ‘t’-ratio found significant. The level of significance to test the hypothesis was set at 0.05.

**3. Results**

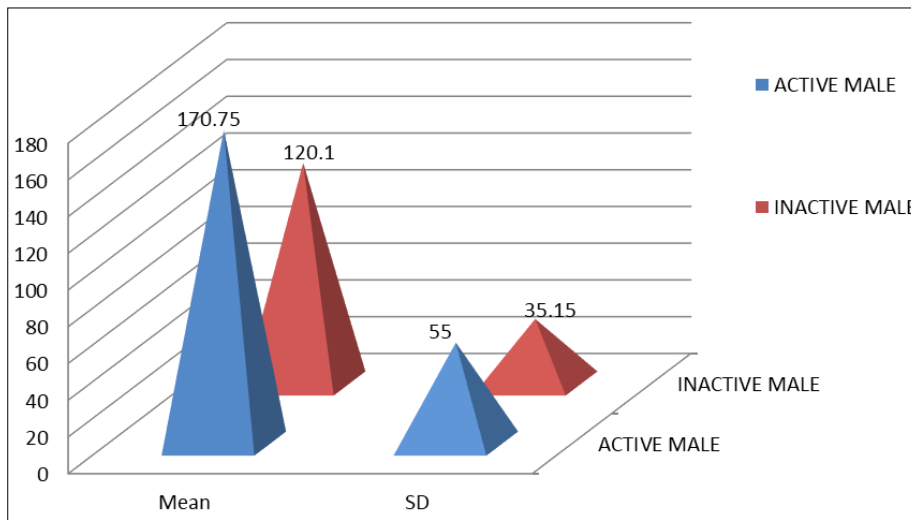
The result of the study is presented in the following Tables.

**Table 1:** Comparison of fasting blood sugar of active male and inactive male type11 diabetic patients

| Group         | N  | Mean   | SD    | t value |
|---------------|----|--------|-------|---------|
| Active male   | 20 | 170.75 | 55.00 | 3.47*   |
| Inactive male | 20 | 120.10 | 35.15 |         |

$t_{0.05} (38) = 2.02$

The table & figure 4.5 reveals that the mean of fasting blood sugar of active male and inactive male of type11 diabetic patients were recorded as 170.75 & 120.10 whereas the standard deviation was 55.00 & 35.15 respectively. The calculated t- value for active male and inactive male of type 11 diabetic patients was 3.47\*, which is greater than the tabulated t- value (2.02) at 0.05 level of significance. So, it implies that there was significant difference found between active male and inactive male of type 11 diabetic patients.



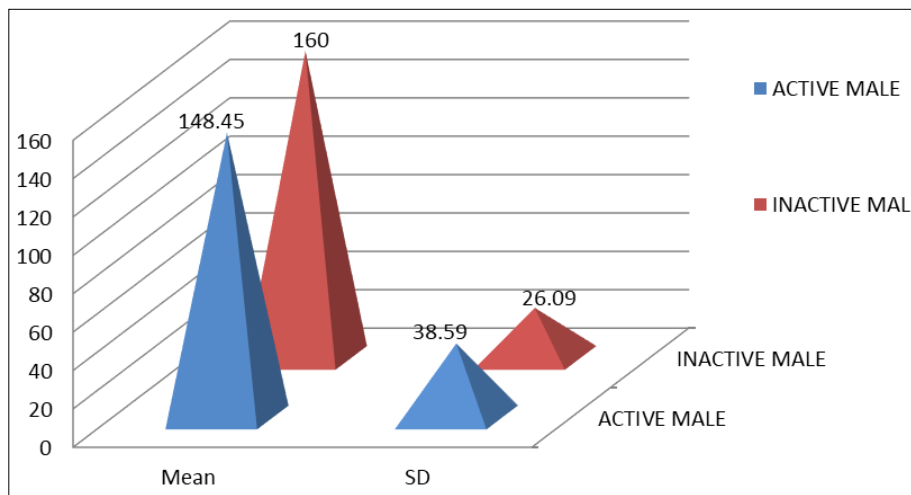
**Fig 1:** Comparison of fasting blood sugar of active male and inactive male type11 diabetic patients

**Table 2:** Comparison of cholesterol of active male and inactive male type11 diabetic patients

| Group         | N  | Mean   | SD    | t value |
|---------------|----|--------|-------|---------|
| Active male   | 20 | 148.45 | 38.59 | 1.10    |
| Inactive male | 20 | 160.00 | 26.09 |         |

$t_{0.05} (38) = 2.02$

The table & figure 4.6 reveals that the mean of cholesterol of active male and inactive male of type 11 diabetic patients were recorded as 148.45 & 160.00 whereas the standard deviation was 38.59 & 26.09 respectively. The calculated t- value for active male and inactive male of type 11 diabetic patients was 1.10, which is lesser than the tabulated t- value (2.02) at 0.05 level of significance. So, it implies that there was no significant difference found between active male and inactive male of type 11 diabetic patients.



**Fig 2:** Comparison of cholesterol of active male and inactive male type11 diabetic patients

#### **4. Conclusion**

The results powerfully prove that, significant differences were observed between active and inactive type 2 diabetic patients of their Blood Glucose (Fasting Blood Sugar) and Insignificant differences were found between active and inactive type 2 diabetic patients their Blood Cholesterol.

#### **5. References**

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