INTRODUCTION

Adiponectin is newly described secretory proteins. It has significant metabolic and anti-inflammatory functions. These functions put forward a defending function in the progress of T2DM. One of the study by Lindsay et al (2002) reported to date favor this case, as they describe a lower prevalence of diabetes for those with elevated adiponectin levels. T2DM and the impaired fasting glucose (IFG) are frequent along with Jordanian residents. The predictable age regularized frequency rate of (IFG) and T2DM were 78% and 17.1% respectively with insignificant sex differences according to a current research. To make matters worse, there are shocking rates of obesity and its related co-morbidities between populations of Jordanians, particularly amongst females.

The objective of the study was to find out the serum adiponectin levels in patients of type 2 diabetes and non diabetics.

METHODOLOGY

After IRB permission, this cross sectional and comparative study was conducted in the Department of Medicine & Pathology, Lahore General Hospital/PGMI, Lahore from February 2012 to August 2012. Sampling method used was non probability sampling.

Inclusion Criteria: Non-obese patients with diagnosis of T2DM, both genders were included and age of 30–50 years.

Exclusion Criteria: Patients with diagnosis of T1DM, patients with H/o endocrine disorders, renal or hepatic diseases, cerebrovascular diseases and hypertension

Grouping of the study: A total of 88 subjects were studied and were divided into three groups i.e. A, B and C. Group A: 34 newly diagnosed patients of T2DM without any treatment. Group B: 34 patients of T2DM on oral hypoglycemic medicine Group C: 20 subjects of normal controls.

Sample collection: Five ml of blood was taken in gel vial. An informed consent was taken. The data was collected and analyzed in SPSS- 15 Mean ± SD values are given for quantitative variables. Comparison was done among the groups. P value of < 0.05 was considered statistically significant.

RESULTS

Table 1: Age distribution in different groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means SD</td>
<td>45.9 ±5.8</td>
<td>45.6 ±5.9</td>
<td>39.2 ± 7.8</td>
</tr>
<tr>
<td>Ranges</td>
<td>30–50</td>
<td>30–50</td>
<td>30–50</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>34</td>
<td>20</td>
</tr>
</tbody>
</table>

Group A= Diabetic group without medication
Group B= Diabetic Group with medication
Group C= Control group i.e. Non diabetics

Table 2: Adiponectin levels in different groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>Adiponectin levels (ng/ml)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Means SD</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>1153.8 ±792.6</td>
<td>A vs B 0.056 (S)</td>
</tr>
<tr>
<td>B</td>
<td>1601.5 ±1210.5</td>
<td>A vs C 0.039 (S)</td>
</tr>
<tr>
<td>C</td>
<td>1560.00 ±1044.6</td>
<td>B vsC0.631 (NS)</td>
</tr>
</tbody>
</table>

Group A= Diabetic group without medication
Group B= Diabetic Group with medication
Group C= Control group (Non diabetics)

DISCUSSION

In our study, mean ± SD values of adiponectin levels in non-diabetics in Group C were 1560 ±1044.6 ng/ml. In group A, mean ± SD values of adiponectin levels were 1153±792.6 and in group B, mean ± SD values of adiponectin levels were 1601±1210.5ng/ml. The adiponectin levels were lower in diabetics without medication (A) as compared to the control group (C). The difference was statistically significant between groups A vs B and A vs C while the difference was statistically insignificant between groups B vs C.

Our results are consistent with the results of Tsou et al (2004) that also showed similar observations regarding adiponectin levels in their study. Another study was done in...
subjects having insulin as a medicine between ages 26 to 56 years and their results are consistent with the results of our study. (Hanley et al. 2007)².

CONCLUSION
The adiponectin levels were lower in newly diagnosed T2DM without medication when comparing with the control group (C) and diabetic group with oral therapy (B). The difference was statistically significant between groups A vs B and A vs C.

Conflict of interest: Nothing to declare

REFERENCES