Improving Health of Medical Staff with Plant-Based Olive Oil Meals; A Pilot Study
Laura Butterfield RN, Mary Flynn PhD RD, Fred Schiffman, MD

Objectives

To test if providing lunches that include extra virgin olive oil improves
1. Body weight, fasting glucose and insulin
2. Eating behavior, specifically decreasing snacking between lunch and dinner
3. Resiliency

METHODS

• N=15 medical staff (1 PA, 1 NP, 1 MD, 12 nurses) all based in an outpatient infusion clinic
• 3 lunch meals (mean 550 kcal) per week for 4 weeks meals contained 1.5-2 Tbs extra virgin olive oil (Corto Olive Oli Co) and were plant based)
• Fasting blood pre and post intervention
• Body weight pre and post intervention
• Questionnaires pre and post intervention

RESULTS

<table>
<thead>
<tr>
<th>Variable</th>
<th>baseline</th>
<th>Post</th>
<th>P=</th>
</tr>
</thead>
<tbody>
<tr>
<td>FBG (mg/dl)</td>
<td>99.6±10.3</td>
<td>95.2±11.8</td>
<td>0.008</td>
</tr>
<tr>
<td>Insulin mU/L</td>
<td>7.4±2.5</td>
<td>6.4±2.3</td>
<td>0.12</td>
</tr>
<tr>
<td>HOMA-IR</td>
<td>1.8±0.6</td>
<td>1.5±0.7</td>
<td>0.09</td>
</tr>
<tr>
<td>Days/W snacking</td>
<td>2.8±0.8</td>
<td>1.5±0.7</td>
<td>0.001</td>
</tr>
<tr>
<td>BMI (kg/m2)</td>
<td>24.2±3.1</td>
<td>24.2±3.1</td>
<td>0.075</td>
</tr>
</tbody>
</table>

HOMA-IR = homeostatic model assessment of insulin resistance. A value ≥ 1.9 indicates IR.

CONCLUSIONS

Allocation of time for meals for oncology nursing staff and physicians proves challenging.

This pilot study indicates that providing lunch meals that contain extra virgin olive oil and are plant based can improve glycemia and snacking behavior in medical staff which should improve their future health.

FUTURE CONSIDERATIONS

The results of this pilot study will be used to design a larger study that will continue to assess glycemic control, likely in hospital nurses with impaired glucose tolerance and/or type 2 diabetes.

A longer study could also lead to improvement in body weight for those with unhealthy weight at baseline, based on earlier studies with plant based, olive oil diet.

Partial funding from Sturnam Family Fund