IMMEDIATE EFFECT OF MIND SOUND RESONANCE TECHNIQUE (MSRT- A YOGIC RELAXATION TECHNIQUE) ON COGNITIVE FUNCTIONs IN TYPE 2 DIABETES

Subarna Mohanty
Yoga Therapist, S-VYASA University, Bangalore

Kashinath Metri
Assistant Professor, S-VYASA University, Bangalore

Nagaratna R.
Chief Medical Officer, Arigya Dham, S-VYASA University, Bangalore

Nagendra H. R.
Chancellor, S-VYASA University, Bangalore

Abstract

Diabetes is one of the chronic medical conditions with high prevalence rates. Long standing diabetes is associated with impaired cognitive functioning. Yoga is known to improve the cognitive functions in normal and many health conditions. Mind Sound Resonance Technique (MSRT) is one of the mindfulness based yogic relaxation technique, known to enhance cognitive functions. The objective comprised to study the immediate effect of MSRT practice on cognitive functions in patient with type 2 diabetes. Fortythree (18 male) type 2 diabetes patients with an age range between 30 to 65 (mean age ± SD = 56.83 ± 12.54) with minimum history of diabetes since last 5 years, were enrolled in this study. All the subjects underwent training of 15 sessions of MSRT practice in 6 days. DLST test was used to assess psychomotor speed, which involves visual scanning, mental flexibility, sustained attention, psychomotor speed and speed of information processing. On 7th day subjects were administered DLST before and immediately after the 30 minutes of MSRT intervention. Data was found normally distributed by Shapiro-Wilcox test. The paired sample t test was used to see the pre-post changes. There was significant improvement in total score (p = 0.001; +24.99%) and net score (p = 0.001; +25.47%) along with a nonsignificant decrease in wrong attempts (p = 0.855) of DLST. Present pilot study indicates that MSRT may have a potential role in enhancing psychomotor performance in patients suffering from diabetes, immediately after the practice. These findings need confirmation from studies with a larger sample size and randomized controlled design, which will be implicated in the future.

Keywords: Mind sound resonance technique; psychomotor performance; diabetes; mindfulness; cognitive functions.

All the subjects were on anti-diabetic medication. Subjects had no previous expose to MSRT practice and were given one week of orientation to MSRT practice before the study. On 7th day subjects were administered DLST before and immediately after the MSRT intervention.

Methods: Fourtythree subjects (18 male) with an age range between 30 to 65 (mean ± SD = 56.83 ± 12.54), suffering from diabetes type 2, since last minimum 5 years, were enrolled in this study [see table 1].

Table 1: Demographic detail of the patients

<table>
<thead>
<tr>
<th>Sr no</th>
<th>Gender</th>
<th>Number</th>
<th>Age (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>18</td>
<td>56.76</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>25</td>
<td>57.00</td>
</tr>
<tr>
<td>3</td>
<td>Total</td>
<td>43</td>
<td>56.83</td>
</tr>
</tbody>
</table>

Data analysis: All statistical analysis was performed using the Statistical Package for Social Sciences (SPSS version 10.0), data was found normally distributed by the Shapiro-Wilcox test. The Paired sample t test was applied to find the pre-post changes.

Result: There was significant improvement in total score (p = 0.001; +24.99%) and net score (p = 0.001; +25.47%) of DLST [see table 2].
References

1Diagnosis and Classification of Diabetes Mellitus. American Diabetes Association. Diabetes Care January 2008 vol. 31 no. Supplement 1 S55-S60


