Fibromyalgia syndrome treated with the structural integration Rolfing® method*

Síndrome fibromiálgica tratada com o método Rolfing® de integração estrutural

Paula Stall1, Manoel Jacobsen Teixeira

*Received from the Pain Center, Neurologic Clinic, Clinicas Hospital, School of Medicine, University of São Paulo São Paulo, SP, Brazil.

ABSTRACT

BACKGROUND AND OBJECTIVES: Rolfing method is a procedure to integrate human body structure, which considers people’s physical and emotional aspects. It consists in 10 deep manual interventions (myofascial release) applied to the elastic structure of the loose connective tissue (myofascial) and in re-education of movements. This study aimed at checking the effectiveness of the method to treat fibromyalgia patients in relieving pain and states of anxiety and depression.

METHODS: Participated in the study thirty patients of the Pain Center, Neurological Clinic, Clinics Hospital, School of Medicine, University of São Paulo, who were submitted to 10 Rolfing sessions and have maintained their routine outpatient treatment. All patients were evaluated by the pain verbal numeric analog scale and by Beck’s Depression and Anxiety Inventory, applied during initial interview, in the last session and three months after treatment completion.

RESULTS: Treatment was effective and has shown statistically significant difference in evaluated items.

CONCLUSION: Patients’ improvement was correlated to Rolfing method intervention.

Keywords: Chronic pain, Complementary therapies, Fibromyalgia, Quality of life.

INTRODUCTION

Fibromyalgia syndrome (FMS) is currently considered syndrome with generalized decrease in pain tolerance. Therapeutic interventions recognized as most effective are antidepressants and analgesics, rest, relaxation, heat and massage. Massage is useful to treat fibromyalgia patients because it improves sleep disorders, psychic symptoms such as anxiety and depression, and pain intensity. FMS pain may trigger reflex protective muscle spasm, which causes further pain and results in progressive movement limitation, stiffness and adoption of inadequate posture.

In general, fibromyalgia patients have amplified body sensations and relationship of dependence on relatives and professionals. They report mood changes, non-restorative sleep and disproportional fatigue to the developed effort. Conflicts trigger and worsen FMS. As consequence, there is further
According to Rolf’s expectations, when changing gestures, musculoskeletal disorders. She noticed that when muscle tissue tone is balanced, the set presents less resistance as a consequence of connective tissue elasticity and plasticity. However, it is necessary to understand how each person moves and misaligns his/her own body from verticality to improve joint bones relations and muscle elasticity and plasticity. Since we move as a whole, each restriction affects the totality. Movements become ineffective, there is excessive energy consumption and adjacent muscle groups are activated instead of remaining at rest. She noticed that when muscle tissue tone is balanced, the set presents less resistance as a consequence of connective tissue elasticity and plasticity. However, it is necessary to understand how each person moves and misaligns his/her own body from verticality to improve joint bones relations and musculoskeletal disorders.

According to Rolf’s expectations, when changing gestures, thoughts and ways to deal with daily life, fibromyalgia patients, subjects of this study, may develop mechanisms to control their symptoms, to adopt more positive posture with regard to the disease, thus not allowing pain to master their lives, this way recovering quality of life and conquering better social adjustment.

Ida Rolf believed that a balanced body makes human beings better. The belief that it is possible to overcome pain by adopting a new posture with regard to the disease has justified this study which aimed at evaluating the effect of Rolfing method on pain intensity and anxiety depression status presented by fibromyalgia patients. The Rolfing method, internationally recognized as complementary therapy, does not replace conventional therapies, but may be part of the multidisciplinary approach often indicated for chronic pain patients. It is worth highlighting that this method may be useful to treat other diagnoses and symptoms; however evaluation and approach should be carried out by specialists.

METHODS

Participated in the study 30 female of age patients, diagnosed by neurologist according to medical criteria proposed by the American College of Rheumatology as having FMS, who were individually submitted to 10 Rolfing sessions at CDCN-HCFMUSP. All patients were randomly selected and evaluated in the beginning, at the end and three months after proposed treatment, and have maintained routine treatment previously prescribed by this outpatient setting.

Inclusion criteria were fibromyalgia patients able to understand and answer with autonomy to proposed tests and who had never received Rolfing treatment. Exclusion criteria were severe psychic changes or illiteracy. All patients were under conventional outpatient treatment for at least one year and had not shown expected improvement. Because pain is a subjective symptom and patients were already been treated, the group itself was considered control. We decided to compare the group to it, where patients were the evaluators of their pain before and after application.

All patients were assisted by a psychologist, specialist in this method, were volunteers for the study, have signed the Free and Informed Consent Term (FICT) and have met research protocol.

Evaluation tools

• Pain Verbal Numeric Analog Scale (PVNA);
• Beck Depression Inventory (BDI);
• Beck Anxiety Inventory (BAI).

PVNA has measured pain in a scale from zero to 10; patients were oriented to verbalize the point corresponding to the magnitude of their pain between the edges zero, that is, ‘no pain’ and 10, that is, ‘unbearable pain’. BDI and BAI have measured depression and anxiety intensity by means of self-applied questionnaire. These tests consider the subjective aspect of analyzed items and patients have evaluated their pain as well as emotional symptoms.

The Rolfing method is characterized by working with myofascial release in parts of the body and with movements’ re-education, because each session has specific biomechanical goals. The process was completed in stages, during 10 individual sessions, once a week, lasting 30 minutes. In this process, the therapist, by means of tissue manipulation, has stimulated diaphragm respiratory freedom indicating relaxation and tensions relief. The therapist has pointed that the vertical axis had two directions (head rostrally and feet caudally) and that knees flexibility and balance come from the contact of feet with the ground. Then, contralateral movements were improved to help aligning pelvis to the chest. Myofascial release concentrated on scapular and pelvic girdles, and movement on arms and legs motor coordination.

Then ischiobibial and paravertebral muscles were exercised, where focus was to make patients aware of their spinal flexibility, the stretching of posterior muscle chain and ground contact via legs and feet. Finally, the therapist has encouraged head balance with regard to neck and the axis as a whole. For such, manipulation aimed at differentiating head from neck, improving spatial orientation by means of new movements. Free movement was always reinforced so that patients could find what is most comfortable inside of them. The objective was to create conditions for them to adopt new posture and gestures and to incorporate them to their daily life. There has been no report of adverse effects.

Statistical analysis

Non parametric Friedman test was used. All variables were descriptively evaluated and quantitative variables related to minimum and maximum value, means and standard deviations were calculated to obtain treatment results.
RESULTS

Sample characteristics are shown in Table 1. Symptoms improvement was maintained from treatment completion until at least three months after its suspension. There has been statistically significant difference at the first evaluation moment in all evaluated items; there has been no difference in the second moment, showing that the result was maintained, except for anxiety which continued improving even after treatment suspension (Tables 2 to 6).

Table 1. Sample characteristics

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>8</td>
<td>26.7</td>
</tr>
<tr>
<td>Married</td>
<td>16</td>
<td>53.3</td>
</tr>
<tr>
<td>Divorced</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>Widow</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>Skin color</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>23</td>
<td>76.7</td>
</tr>
<tr>
<td>Pardo</td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td>Education (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary (up to 8)</td>
<td>20</td>
<td>66.7</td>
</tr>
<tr>
<td>High school (up to 11)</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>College (more than 11)</td>
<td>5</td>
<td>16.7</td>
</tr>
</tbody>
</table>

Table 2. Pain intensity according to verbal numeric analog scale

<table>
<thead>
<tr>
<th>Pain intensity</th>
<th>Before treatment</th>
<th>At treatment completion</th>
<th>Three months after treatment completion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
<td>No pain</td>
<td>0 0</td>
<td>5 16.7</td>
<td>4 13.3</td>
</tr>
<tr>
<td>Mild</td>
<td>0 0</td>
<td>6 20</td>
<td>8 26.7</td>
</tr>
<tr>
<td>Moderate</td>
<td>0 0</td>
<td>13 43.3</td>
<td>13 43.3</td>
</tr>
<tr>
<td>Severe</td>
<td>4 13.3</td>
<td>6 20</td>
<td>4 13.3</td>
</tr>
<tr>
<td>Unbearable</td>
<td>26 86.7</td>
<td>0 0</td>
<td>1 3.3</td>
</tr>
</tbody>
</table>

Table 3. Anxiety level according to Beck Anxiety Inventory

<table>
<thead>
<tr>
<th>Anxiety level</th>
<th>Before treatment</th>
<th>At treatment completion</th>
<th>Three months after treatment completion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
<td>Minimum</td>
<td>0 0</td>
<td>12 40</td>
<td>21 70</td>
</tr>
<tr>
<td>Mild</td>
<td>2 6.7</td>
<td>12 40</td>
<td>5 16.7</td>
</tr>
<tr>
<td>Moderate</td>
<td>8 26.7</td>
<td>5 16.7</td>
<td>3 10</td>
</tr>
<tr>
<td>Severe</td>
<td>20 66.7</td>
<td>1 3.3</td>
<td>1 3.3</td>
</tr>
</tbody>
</table>

Table 4. Depression level according to Beck Depression Inventory

<table>
<thead>
<tr>
<th>Depression level</th>
<th>Before treatment</th>
<th>At treatment completion</th>
<th>Three months after treatment completion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
<td>Minimum</td>
<td>3 10</td>
<td>17 56.7</td>
<td>23 76.7</td>
</tr>
<tr>
<td>Mild</td>
<td>4 13.3</td>
<td>6 20</td>
<td>5 16.7</td>
</tr>
<tr>
<td>Moderate</td>
<td>14 46.7</td>
<td>7 23.3</td>
<td>2 6.7</td>
</tr>
<tr>
<td>Severe</td>
<td>9 30</td>
<td>0 0</td>
<td>0 0</td>
</tr>
</tbody>
</table>

Table 5. Changes in pain intensity, depression and anxiety

<table>
<thead>
<tr>
<th>Variables</th>
<th>Moments</th>
<th>Mean</th>
<th>SD</th>
<th>Median</th>
<th>Minimum</th>
<th>Maximum</th>
<th>n</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>Beginning</td>
<td>9.07</td>
<td>1.14</td>
<td>10.0</td>
<td>7</td>
<td>10</td>
<td>30</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>Treatment completion</td>
<td>2.80</td>
<td>1.79</td>
<td>3.0</td>
<td>0</td>
<td>5</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Three months later</td>
<td>3.07</td>
<td>2.02</td>
<td>3.0</td>
<td>0</td>
<td>9</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>Beginning</td>
<td>29.80</td>
<td>11.41</td>
<td>30.5</td>
<td>10</td>
<td>53</td>
<td>30</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>Treatment completion</td>
<td>11.43</td>
<td>9.27</td>
<td>8.5</td>
<td>0</td>
<td>31</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Three months later</td>
<td>8.13</td>
<td>6.43</td>
<td>8.0</td>
<td>0</td>
<td>27</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>Beginning</td>
<td>37.30</td>
<td>12.75</td>
<td>36.5</td>
<td>13</td>
<td>58</td>
<td>30</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>Treatment completion</td>
<td>13.87</td>
<td>10.01</td>
<td>11.5</td>
<td>1</td>
<td>53</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Three months later</td>
<td>10.53</td>
<td>9.58</td>
<td>7.0</td>
<td>0</td>
<td>44</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>
The Rolfing method aims at patients improving their biomechanics, thus finding new inter- 
chanical action by learning more effective movements as a 
result, tissue manipulation reaches the whole body, so as to re- 
cover balance also in regions distant from those manipulated. 
So, function and biomechanical stability may be enhanced 
by fascial manipulation and by sensory-motor education by 
reaching minimum stress and overload and maximum daily 
movements’ effectiveness.

By relieving tensions, stimulating new body perception and 
the development of functional resources, the therapist teaches 
patients to cultivate the ability to separate established and 
already incorporated habits from new movement patterns 
cauling less biomechanical tension. Patients are active par- 
cicipants of the process so that one works with patients and not on patients.

The Rolfing method aims at patients improving their biome- 
chanical action by learning more effective movements as a 
consequence of postural alignment, thus finding new inter- 
ests in themselves and the environment where they live, and 
learning new ways to move and to cope with pain. Body bal- 
ance is also part of the well-being scenario. It offers quality 
in spatial orientation and helps dealing with movement-in- 
duced instability. Even if symptoms were not totally resolved, 
patients were able to conquer new skills, which is an initial 
healing possibility. Jacobson, in his review, reports findings of 
chronic pain improvement in patients treated with Rolfing. 
Touching may intensify therapeutic skills and patients’ recov- 
er. When regaining freedom of movements, they find their 
way to relax, to move and to cope with their own conflicts. So, 
this technique may help refining stress coping mechanisms 
and the resolution of problems generated by the chronic na- 
ture of the disease.

DISCUSSION

This study has indicated that treatment has contributed to the 
recovery of fibromyalgia patients. Rolfing method’s proposal 
is to improve communication of musculoskeletal structures 
with the nervous system. Ida Rolf has concluded that what prevented ideally free and natural movement was related to 
myofascial tissue, perception, neuromotor coordination and/or 
emotional meaning.

The Rolfing method is based on general organism response (homeostasis) and contemplates connective tissue contin- 
uity, thus treating individuals as a whole rather than treating symptoms alone. Its objective is that, via punctual inter- 
vention, tissue manipulation reaches the whole body, so as to re- 
cover balance also in regions distant from those manipulated. 
So, function and biomechanical stability may be enhanced 
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this technique may help refining stress coping mechanisms 
and the resolution of problems generated by the chronic na- 
ture of the disease.

Life strength motivating and mobilizing healthy individuals topleasurable face their lives is in general absent in fibromy- 
algia patients. FMS is like the end of a process where patients 
see no chance of recovery. The contact with themselves is 
made through pain. Without resources to deal with this, they 
are depressed, imprisoned in their own pain. In this stage, 
chronic disease does not tend to self-healing, but rather in- 
creasingly to worsening.

Depressed patients have fear of changes, with pain, they para- 
lyze inside themselves and lose creativity, that is, the human 
ability to create something new. Patients treated with the Rol- 
ing method could get something new in the perception of 
them, as well as in pain perception and have acquired the possi- 
bility of daily life transformation and action. Through touching 
and new movements, they were awakened for a new awareness 
and reality of themselves. Patients were strengthened and new 
conquers have influenced also the emotional field.

Ida Rolf shared the ideas of Wilhelm Reich and also believed 
that chronic tension determining muscle pattern restricts 
movement and postural alignment, which may contain and 
be related to emotional and behavioral issues, in addition to stress. Although findings related to psychological benefits 
have still not been sufficiently investigated, there are reports 
on decreased levels of anxiety and depression after Rolfing 
treatment. However, clinical efficacy evidence is still very 
limited due to the scarcity of studies.

For the study group, treatment has provided improvement of 
analyzed symptoms and has shown that it is able to mobilize 
fibromyalgia patients when they understand that pain may 
mean a concrete reality of their self and body ‘obstacles’ over- 
coming. It is certain that antidepressants and analgesics help 
treating FMS. However, future studies are recommended to 
evaluate the effectiveness of the association of different drugs 
to the Rolfing method to see whether there is possibility of 
decreasing quantity and maintenance duration of such drugs, 
as well as to validate the hypothesis that this method may 
 improve sensory processing and contribute to individuals’ 
psychological health.

CONCLUSION

Treatment had positive, statistically significant effect on pain 
intensity, anxiety and depression. Patients presented changes
in initial condition which were correlated to Rolfing method intervention. However, the relationship between pain decrease and psychological benefits shall be further investigated.

REFERENCES


