CONTROL ID: 3025383
TITLE: EFFECT OF RESPIRATORY MUSCLE TRAINING IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE.
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PRESENTATION TYPE: Original study
CURRENT CATEGORY: Asthma/Pulmonary Disease
Open Forum Poster Consideration: Yes
ABSTRACT BODY:
Abstract Body: Background: There is a report that improvement of shortness of breath is seen when respiratory muscle training is used in combination, but it is not clarified whether it is due to decrease of respiratory center output or increase of peripheral respiratory muscle force. Therefore, this time, using respiratory muscle training equipment for actual COPD patients, whether improvement of shortness of breath is recognized before and after training, and P 0.1 measurements as index of respiratory center output is performed, and improvement is central. Determine whether it is peripheral.

Method: Fourteen stable outpatients with COPD participated in the study. Power Breeze\textregistered was used for inspiratory muscle training equipment. Respiratory muscle strength was measured and started from a load of 20\% of Pmax, and 2 sets of 30 times a day were asked to perform respiratory muscle training every day for 2 months. We measured mouth occlusion pressure (P0.1), respiratory muscle strength (Pmax, PEmax), 6MWD (6-minutes walking distance) test, spirometry, ventilatory parameters before and after respiratory muscle training. We also measured the movement and thickness of the diaphragm by ultrasound.

Results: There were significantly increased Pmax, Ppeak after respiratory muscle training (p<0.001). The walking distance was extended, and the diaphragm's extended distance also increased after training (p<0.01-0.001). However, P0.1 and P0.1/Pmax did not reduced significantly after training.

Conclusions: Respiratory muscle training improves respiratory muscle strength and 6MWD. This is considered to be peripheral improvement, not central. It seemed to be effective in pulmonary rehabilitation.

TABLE:
Note: The PDF table below is only an approximation of the HTML content and may not match formatting exactly.

<table>
<thead>
<tr>
<th></th>
<th>Plmax***</th>
<th>Plpeak***</th>
<th>6MWD**</th>
<th>diaphragm expansion difference ***</th>
<th>P0.1/Pmax</th>
</tr>
</thead>
<tbody>
<tr>
<td>before</td>
<td>89.8±29.1</td>
<td>66.4±24.0</td>
<td>354.7±118.6</td>
<td>0.03±0.02</td>
<td>3.7±0.6</td>
</tr>
<tr>
<td>after</td>
<td>115.5±18.8</td>
<td>84.0±21.3</td>
<td>384.0±119.4</td>
<td>0.02±0.01</td>
<td>4.9±0.8</td>
</tr>
</tbody>
</table>

*p<0.05  **p<0.01  ***p<0.001
CONFLICT OF INTEREST: No financial interest
IRB & HIPAA DECLARATION: Yes, HIPAA
PUBLISHING ACCEPTANCE: We agree
SPONSORED RESEARCH: No