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TITLE: EFFECT OF RESPIRATORY MUSCLE TRAINING IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE.

AUTHORS (LAST NAME, FIRST NAME): Ichiba, Tomomi^{1, 2}; Miyagawa, Tetsuo²; Tsuda, Toru³

INSTITUTIONS (ALL):

1. Department of Physical Therapy, Kyorin University, Mitaka-shi, Tokyo, Japan.
2. Division of Respiratory Care, Showa University Graduate School of Nursing and Rehabilitation Sciences, Yokohama, Kanagawa, Japan.
3. Kirigaoka Tsuda Hospital, Kitakyusyu, Fukuoka, Japan.

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® was used for inspiratory muscle training equipment. Respiratory muscle strength was measured and started from a load of 20% of P_{lmax}, 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 (P_{0.1}), respiratory muscle strength (P_{lmax},P_Emax),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 P_{lmax}, P_{lpeak} 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, P_{0.1} and P_{0.1}/P_{lmax} 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.

Results of each indicator before and after respiratory muscle training					
	P _{lmax} ***	P _{lpeak} ***	6MWD**	diaphragm expansion difference ***	P _{0.1} /P _{lmax}
before	89.8±29.1	66.4±24.0	354.7±118.6	0.03±0.02	3.7±0.6
after	115.5±18.8	84.0±21.3	384.0±119.4	0.02±0.01	4.9±0.8

* p<0.05 **p<0.01 ***p<0.001

(No Image Selected)

CONFLICT OF INTEREST: No financial interest

IRB & HIPAA DECLARATION: Yes, HIPAA

PUBLISHING ACCEPTANCE: We agree

SPONSORED RESEARCH: No