Pulmonary Rehabilitation

CASE REPORT: CLINICAL BENEFITS OF COMBINATION OF SCAPULOPTHORACIC-THORACIC EXTENSION MOBILIZATION AND REVERSED LOWER COSTAL BREATHING TREATMENTS IN CONVENTIONAL CHEST PHYSICAL THERAPY IN A COPD PATIENT

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PURPOSE: Reversing of lung atelectasis from secretion block, improved chest wall expansion (CWE), respiratory muscle strength (PImax), and maximal inspiratory volume (IVmax) are difficult resolved by only a conventional chest physical therapy (CPT) with modified postural drainage, percussion, and suction from chest wall stiffness in chronic obstructive pulmonary disease (COPD). Then, whether a combination of scapulothoracic-thoracic extension mobilization and reversed lower costal breathing treatments in a conventional CPT could improve the CWE, PImax, IVmax, and infiltration.

METHODS: CWE, PImax, and IVmax were assessed during 7 days of conventional CPT and during 7 days of a combination of the scapulothoracic-thoracic extension mobilization and reversed lower costal breathing treatments in a conventional CPT. Infiltration in the lung was monitored by chest radiography (CXR) at before and at the end of each period.

RESULTS: During a conventional CPT, lung atelectasis, CWE, PImax, and IVmax slightly non-clinically changed. After a combination of mobilization and revered lower costal breathing treatments in a conventional CPT, the CWE, PImax, and IVmax progressively increased with clinical changes. Moreover, infiltration in CXR film was less than when compared to at a conventional CPT period.

CONCLUSIONS: Combination of the scapulothoracic -thoracic extension mobilization and reversed lower costal breathing treatments in a conventional CPT helps to better clinically changes in COPD.

CLINICAL IMPLICATIONS: Mobilization on scapulothoracic and thoracic spine and costal breathing with reversed pattern help to improve chest wall expansion, respiratory muscle strength, and clear secretion in the lungs in COPD patient.

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