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9th International Conference on COPD and Lungs, Tokyo, Japan, August 19-20, 2017 - Effectiveness of Pulmonary Rehabilitation on Malignant Respiratory Diseases

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Introduction

We should not forget that air pollution, industries and chemical warfare in the world can be important for the prevalence of many malignant respiratory diseases in all countries and populations. At present, carcinoma has been diagnosed with about 1.6 million people within the world and every year there are 1.3 million cancer-related deaths worldwide, which may be a major health threat that increases treatment and health costs. By 2020, 2 million people are expected to be diagnosed with lung cancer. In addition, during a survey of 5 years' mortality in 90-85% of them, carcinoma is liable for quite 1 / 4 of total cancer deaths.

Methodology

This article may be a descriptive study, and every one data and scientific information calculated via high value scientific resources consistent with final achievements of pulmonary rehabilitation on malignant respiratory patients. Also, methodology on this text to be bibliographic and descriptive on based of a meta-analysis research. Some scientific sites for extract newest articles include: PubMed, web of science, EBSCOhost, Science direct, Elsevier, Google scholar and Scopus.

Chemical injuries

One of the deadly chemical agents is a biophysical neutral matter, that is, sulfur mustard (SM), which has been used in various wars since the First World War, and accounts for more than 80% of all casualties and chemical injuries in the war. Sulfur mustard (SM) may be a powerful weapon of mass destruction widely utilized in warfare and toxic effects of SM include the eyes, skin, systema nervosum , system and particularly the systema respiratorium. One of the most important toxic effects of SM is pulmonary dysfunction, in which the major pathology is based on obliterans bronchiolitis (BO). In the long run, cough, sputum, and shortness of breath have been reported in 80% of patients after exposure to the SM. Hemoptysis, chest tightness, chest pain, and nightly sore throat are also common side effects. Clinical findings often lead to the diagnosis of wheezing, cracking, cloying and cyanosis. Pulmonary function tests indicate that chronic obstructions are the most common abnormal patterns, and half of the obstruction cases are reversible after use of inhaled bronchioles. Spirometry findings increase in disruptive factors over time. One of the simplest pathways of drugs is Thiotropium bromide, which may be a long-acting anticholinergic agent and may improve lung function and exercise tolerance. It also reduces dyspnea and mortality although the severity of respiratory attacks in COPD patients. Temel et al. first examined the effectiveness of exercise tests interventions, especially in patients with new advanced cell lung cancer diagnosed. However, those who were able to complete the program had significant progress in their lung cancer symptoms (cough, shortness of breath, and chest discomfort), and there was no doubt about their 6MWT rate, which could be seen as a positive finding in this group that whom deterioration of exercise tolerance would have been observed without intervention.

Lung cancer

Lung cancer is the second most common type of cancer that is the leading cause of cancer deaths and is expected to account for 13% of new cancer diagnosis with death of 159,260 peoples in 2014. With a better understanding of the cancer biology and the use of

targeted therapies, the disease has improved, while survival rates of 1 year and 5 years old are 43% and 17% lower. In addition, patients with carcinoma have symptoms like pharyngitis, cough, chronic fatigue, anxiety, depression, insomnia, and general pain within the body. Even survivors of carcinoma who are diagnosed for quite 5 years have experienced quality of life impairment in 35% of cases and reported lower physical and health scores than healthy people. Interestingly, patients who experience improved quality of life after treatment (15%) don't change the symptoms of the disease, indicating an adaptation to chronic symptoms. Patients with carcinoma are during a unique condition where their illness, their combination and their treatment may worsen the symptoms of the disease. Chronic obstructive pulmonary disease (COPD) is diagnosed in 73% of men and 53% of women with primary lung cancer. Across the world, pulmonary rehabilitation programs are an essential tool in managing respiratory patients. Pulmonary rehabilitation is presently a legitimate standard method for the care of patients with malignant respiratory disease that preserves its symptoms, no matter the treatment of bronchodilators, and may indicate improvement in symptoms with cardio-pulmonary exercise protocols. Thousands of those patients are without treatment with severe respiratory symptoms. However, the results of Tiotropium bromide and respiratory rehabilitation in patients with BO haven't yet been determined.

Mechanisms between COPD and lung Cancer

COPD-associated inflammation may play a role in the pathogenesis of lung cancer, as chronic inflammation contributes to malignant changes in other organs. Inflammation in COPD may cause epithelial damage, which can increase the effects of carcinogens in smoking. Although all types of lung cancer cells occur in COPD, airflow obstruction is associated with an increased risk of squamous cell carcinoma. In developing countries, air pollution, due to the use of biomass fuels for heating and cooking, can form significant pathogens and contribute to COPD, especially in women. Given the current hypothesis, the risk of cancer in COPD is related to chronic inflammation in airways, and in these patients, inhaled corticosteroids are considered as effective factors in the prevention of chemotherapy. A meta-analysis of a clinical trial that also examines the benefits of inhaled corticosteroids in COPD also shows a trend toward lowering the risk of lung cancer in inhaled corticosteroid patients.

Tobacco smoke inhalation injury

When treating patients with possible inhalation by smoke, study the danger factors within the person's medical record. These include closed-door fire, which includes carbon sputum, increased carbon monoxide (CO), and central facial burns. After that, the patient may recover and not get worse because the pulmonary edema has been postponed. Each patient should be monitored for chest radiography within 24-48 h after being exposed to toxic signals.

Conclusion

Historical evidence suggests that exercise can be effective at all stages of lung cancer, survivors of lung cancer and other types of malignant respiratory illnesses. However, the perfect mechanism for exercise implementation has not yet been identified in these patients. We can also imagine this approach to the chemical damage suffered by mustard gas and fibrosis that suffer in their own right, so that we can review the exercise mechanism, then planning the pulmonary rehabilitation to manage these diseases. Exercise barriers are remarkable in these patients, but studies have shown the patient's desire for counseling before starting rehabilitation and recommendations on the subject. Exercise based on low intensity exercises has been successful and shows a role in monitoring and implementing their rehabilitation plans using COPD population and studies of lung cancer patients.

Note : This work is partly presented at 9th International Conference on COPD and Lungs, August on 19-20, 2017 held at Tokyo, Japan