

New data for venous thromboembolism in patients with small cell lung cancer: A review

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Abstract

Malignancy is an important predisposing factor for thromboembolic disease. Patients with malignancy display 4 to 10 times greater risk than the general population. As for lung cancer, that risk seems to further increase and become up to 20 times higher. The aim of this article is to review the International literature in order to highlight for the first time, the correlation between thromboembolic disease and small cell lung cancer. PubMed, Medline and Embase databases were searched from 1990 up to 2016, for retrospective and prospective studies that investigate the correlation between thromboembolic disease and small cell lung cancer. The incidence rate of thromboembolic disease found in these studies ranged between 6.8% and 11.5%. Thromboembolic disease is associated with a reduced survival in patients with small cell lung cancer and six factors seemed to increase the risk of thromboembolism: chemotherapy, cisplatin treatment, smoking, extensive disease, the infiltration of the superior vena cava and multiple concomitant diseases. Thromboembolic disease shows an increased incidence in patients with small cell lung cancer and more research with well-designed studies is required in order to study in detail the anticoagulation treatment and the survival in small cell lung cancer patients.

Keywords

Venous thromboembolism, small cell lung cancer, treatment, survival

Introduction

Lung cancer is the most common cancer in men and the third most common in women, worldwide.¹ According to the World Health Organization (WHO), there are 1,590,000 deaths worldwide due to lung cancer, annually.¹ Lung cancer is the second most common cancer in both sexes in the United States of America (USA), following prostate cancer in males and breast cancer in women.^{2,3} In the past, small cell made up 17.3% of new cases of lung cancer; however, incidence has decreased in recent years. It now accounts for about 13% of new cases.^{4,5}

Thromboembolic disease is an important factor of morbidity and mortality; it affects the quality of life of patients, and is a financial burden on health systems. Manifested as deep venous thrombosis and pulmonary embolism, it might affect people of any age, gender and race. The prevalence of thromboembolic disease is one to two per 1000 people, among the general population.^{6,7} Malignancy is an important predisposing factor for thromboembolic disease. Patients with

malignancy display 4 to 10 times greater risk than the general population.^{8,9} As for lung cancer, that risk seems to further increase and become 20 times higher.^{10–17}

Aim

The purpose of this article is to review the International literature in order to highlight the correlation between thromboembolic disease and small cell lung cancer (SCLC). The main goal was to identify the incidence and the predisposing factors of disease occurrence in these patients. In addition, an attempt was made to compare the incidence of thromboembolic disease in

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