Perspective

Lung cancer: A deadly form of cancer worldwide

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INTRODUCTION

Lung cancer remains one of the most prevalent and deadly forms of cancer worldwide, posing significant health challenges and impacting millions of lives annually. Characterized by abnormal growth of cells in the lungs, lung cancer can spread to other parts of the body and severely affect respiratory function. Understanding lung cancer, including its causes, symptoms, diagnosis, and treatment options, is crucial for improving outcomes and advancing public health efforts. Lung cancer is primarily classified into two main types based on histological characteristics. This is the most common type, accounting for approximately 85% of lung cancer cases.

DESCRIPTION

NSCLC is further divided into three main subtypes. Often found in the outer regions of the lung and more common in non-smokers and women. Typically originates in the lining of the airways and is commonly associated with smoking. A less common and more aggressive form of NSCLC that can occur in any part of the lung. Comprising about 15% of lung cancer cases, SCLC is characterized by smaller cells that grow quickly and are more likely to spread to other parts of the body. It is strongly linked to smoking and tends to be more aggressive than NSCLC. The primary cause of lung cancer is smoking, which accounts for the majority of cases. Occupational exposures to substances such as asbestos, radon gas, and certain chemicals can increase lung cancer risk. Long-term exposure to air pollution and secondhand smoke can contribute to the development of lung cancer. A family history of lung cancer can increase susceptibility, suggesting a genetic predisposition. Diseases such as Chronic Obstructive Pulmonary Disease (COPD) and pulmonary fibrosis can elevate cancer risk. Lung cancer symptoms can vary and may not appear until the disease is advanced. A cough that does not go away or worsens over time. Pain or discomfort in the chest that may be persistent or worsen with coughing or breathing. Difficulty breathing or feeling breathless even with minimal exertion. Coughing up blood or blood-streaked sputum. Significant weight loss without a clear cause. Persistent tiredness and weakness. Diagnosis involves several steps. Assessing symptoms, risk factors, and overall health. Chest X-rays, CT scans, and PET scans are used to identify abnormal growths or metastasis. A definitive diagnosis is made through a biopsy, which involves obtaining and analyzing a sample of lung tissue. Methods include bronchoscopy, needle biopsy, or surgical biopsy. Tests to identify genetic mutations or biomarkers can help determine the most effective treatment options. Treatment for lung cancer depends on the type, stage, and overall health of the patient. Removing the tumor and, in some cases, part or all of the affected lung. Surgical options include lobectomy, pneumonectomy, or wedge resection. Using high-energy rays to target and kill cancer cells, often used for patients who cannot undergo surgery or as part of a combined treatment approach.

CONCLUSION

Systemic treatment with drugs that kill cancer cells or stop them from growing. It is often used for SCLC and advanced NSCLC. Drugs that specifically target cancer cells with particular genetic mutations or characteristics, reducing damage to healthy cells. Stimulating the body's immune system to recognize and attack cancer cells. It has shown promise in treating various types of lung cancer. In conclusion, lung cancer is a severe and complex disease with significant health implications. Early detection, effective treatment, and preventive measures are vital for improving outcomes and reducing the impact of this challenging condition.

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CONFLICT OF INTEREST

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