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Editorial

The Future Prospects For Lung Cancer Treated With Systemic Therapy

Cancer remains a major public health problem in Indonesia, requiring substantial treatment costs. The three most common types are breast cancer, cervical cancer, and lung cancer. Screening and early detection programs are essential to achieving better outcomes. Screening initiatives are expected to reduce cancer incidence, though their effectiveness can only be confirmed through long-term evidence. Meanwhile, early detection programs aim to improve patient prognosis. The success of these programs depends not only on adequate facilities and infrastructure but also on increasing public awareness and understanding of cancer, especially considering that many patients are still diagnosed at an advanced stage. Consequently, it is not surprising that a significant portion of healthcare funding is allocated to cancer treatment.

The main goals of cancer management are to cure the disease, prolong survival, and relieve symptoms when a cure is not possible. For early-stage cancers, the primary objective is often to completely eliminate the malignancy through treatments such as surgery or chemotherapy. In contrast, for advanced-stage cancers, the focus shifts toward slowing disease progression, managing complications, and improving the patient's quality of life. Lung cancer, in particular, has a poor prognosis and is associated with a shorter average life expectancy. It remains the leading cause of cancer-related death worldwide, largely because most cases are diagnosed at an advanced stage when systemic therapy becomes the mainstay of treatment. Systemic therapy for lung cancer includes chemotherapy, targeted therapy, and immune checkpoint inhibitors (ICIs). Platinum-based doublet chemotherapy given in three-week cycles remains a cornerstone, while targeted therapy may be used when appropriate molecular markers are identified.

Currently, tyrosine kinase inhibitors (TKIs) targeting EGFR mutations are available for patients with EGFR gene alterations, while ALK inhibitors are indicated for those with positive ALK IHC results. Similarly, ICIs can be administered to patients with positive PD-L1 expression on immunohistochemistry. Evidence-based studies demonstrate that properly selected and administered systemic therapies result in significantly better outcomes. Overall survival among patients receiving targeted therapy or ICIs shows a remarkable improvement compared with conventional chemotherapy, particularly when considering reduced therapeutic toxicity and better quality of life.

Furthermore, several studies have shown that combining chemotherapy with targeted therapy or ICIs can yield promising results. Despite the challenges posed by small sample sizes and incomplete mortality records, studies in Indonesia also reveal a positive trend: appropriately administered targeted therapies or ICIs in suitable patients demonstrate superior efficacy compared with conventional chemotherapy.

Elisna Syahruddin
Department Pulmonology and Respiratory Medicine
Faculty of Medicine Universitas Indonesia

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