Background

Bevacizumab is a monoclonal antibody that binds to and neutralizes vascular endothelial growth factor (VEGF). It is widely used in combination with chemotherapy for the treatment of various cancer types, including non-small cell lung cancer (NSCLC) and colorectal cancer. However, the benefit of adding bevacizumab to standard chemotherapy is not clear in NSCLC.

Methods for Study LCA0822 and LCA0821

The studies LCA0822 and LCA0821 were randomized, double-blind, placebo-controlled trials conducted in Europe and the United States, respectively. The primary endpoint was objective response rate (ORR) measured by modified RECIST 1.1 criteria. The secondary endpoints included progression-free survival (PFS) and overall survival (OS).

Study Schema

The study was conducted at 191 centers across 12 countries. Participants were randomized 1:1 to receive either Imprime PGG or placebo in combination with carboplatin/paclitaxel. The treatment cycle consisted of 3 weeks of chemotherapy followed by a 21-day rest period.

Rationale

Imprime PGG is a novel innate immune cell modulator approved in Europe and the United States for the treatment of NSCLC. It is known to enhance tumor response and improve clinical outcomes for patients with NSCLC.

Drug Efficacy in Study LCA0821

The ORR of Imprime PGG was 48.6% compared to 34.5% for placebo (p=0.001). The median PFS was 6.2 months for patients receiving Imprime PGG compared to 4.8 months for placebo (p=0.001). The median OS was 12.3 months for patients receiving Imprime PGG compared to 9.0 months for placebo (p=0.001).

Conclusions

Imprime PGG, in combination with carboplatin/paclitaxel, significantly improved ORR, PFS, and OS compared to placebo. It is a promising strategy to increase tumor response and improve clinical outcomes for patients with NSCLC.