Background

In a recent phase 2 trial, Imprime PGG (15 mg/kg) combined with carboplatin/paclitaxel improved objective response rates (ORR) from 15% to 20% in patients (pts) with non-squamous non-small cell lung cancer (NSCLC) who had previously received chemotherapy. Combination therapy with platinum-based chemotherapy and anti-angiogenic therapy, bevacizumab, showed promising results. A randomized clinical trial was designed to examine the combination of bevacizumab with biological immune cell modulators to improve the treatment outcome in pts with non-squamous NSCLC.

Methods

A randomized, open-label, multicenter, 2:1 phase II trial was conducted. Pts with stage IV non-squamous NSCLC that had progressed after one previous systemic therapy were eligible. In the Imprime PGG group, pts were scheduled to receive 6 cycles of carboplatin/paclitaxel followed by 18 cycles of carboplatin/paclitaxel plus Imprime PGG. Bevacizumab was given concomitantly with the carboplatin/paclitaxel. The primary endpoint was ORR (based on modified* RECIST 1.0).

Results

A total of 165 pts were randomized. The ORR was 40.2% in the Imprime PGG group versus 18.5% in the control group (P = 0.004). Median overall survival was 13.2 months in the Imprime PGG group versus 9.9 months in the control group (P = 0.002). A significant benefit was also seen in the duration of response, the patient remained on study for an additional 26 weeks in the Imprime PGG group compared to 16 weeks in the control group.

Conclusion

Combination therapy of immunomodulator Imprime PGG with carboplatin/paclitaxel and bevacizumab demonstrated significant antitumor activity and durable responses in pts with non-squamous NSCLC. The results suggest a potential role for this combination in the treatment of non-squamous NSCLC.

References

1. Antonysamy M et al, J Immunol. 2014 May 1;192:73.9
2. Avastin (bevacizumab) Summary of Product Characteristics 08/2014
3. Cancer Facts and Figures 2014, American Cancer Society

Disclosures

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