Consorci Sanitari Integral
Hospital de Sant Joan Despí Moisès Broggi

RESULTS OF EFFECTIVENESS AND SAFETY IN REAL CLINICAL PRACTICE OF NIVOLUMAB, PEMBROLIZUMAB AND ATEZOLIZUMAB IN NON-SMALL CELL LUNG CANCER

Gracia García B, Murgadella Sancho A, Losa López L, Puebla Villaescusa A, Hidalgo Albert E
Pharmacy Department. Hospital Moisès Broggi. Consorci Sanitari Integral.

Background and importance

Immunotherapy has represented a revolution in the therapeutic strategy of non-small cell lung cancer (NSCLC), expanding the number of targets and available therapeutic options.
Among the new pharmacological groups that have appeared for the treatment of metastatic NSCLC highlight anti PD1 (nivolumab, pembrolizumab) and anti PDL1 (atezolizumab) immune checkpoint inhibitors.
Sometimes patients treated in our hospitals differ from those treated in clinical trials and we don't get the results that we expected.

Purpose

To assess the effectiveness and safety of nivolumab, pembrolizumab and atezolizumab in real clinical practice in a second level university hospital.

Methods

Retrospective observational study in NSCLC patients treated with first or second line pembrolizumab, second line nivolumab, and second line or later atezolizumab between 01 of September 2016 and 31 of December 2019.
Data was collected through the patients' medical records and the oncology prescription program used in our center. The database included demographic variables, tumor-related, and treatment-related variables.
To assess effectiveness, we analyzed: response according to the RECIST criteria, we categorized the variable into stable disease or progression disease and progression-free survival (PFS).
To assess safety, a description of side effects related to treatment was carried out according to Common Toxicity Criteria (CTCAE vs 5).
Statistical analysis was performed with IBM SPSS Statistics v26.
Kaplan-Meier statistical method was used to perform survival analysis.

Results

63 patients, median age 67 years, men (86%), ECOG-PS1 (92%) and stage IV disease (100%).
Median PFS of global population was 3.1 months (95% CI: 2.58-3.55). Objective global response rate was 17.5%. 50.1% of patients experienced toxicity. Most frequent toxicity was asthenia in 22.2% of patients.
Patients with first-line pembrolizumab (9.5%) obtained PFS of 11.2 months (95% CI 0-28, 22) (**figure 1**), in second-line pembrolizumab-treated patients (4.8%) PFS had not been achieved (**figure 2**), in patients with atezolizumab (14.3%) PFS was 3.2 months (95% CI 2,6 -3,98) (**figure 3**) and in patients with nivolumab (71.4%) PFS was 2.7 months (95% CI 1,93-3,53) (**figure 4**). The most frequent adverse events for the three drugs were asthenia, anorexia, and immune-mediated effects.

Figura 1

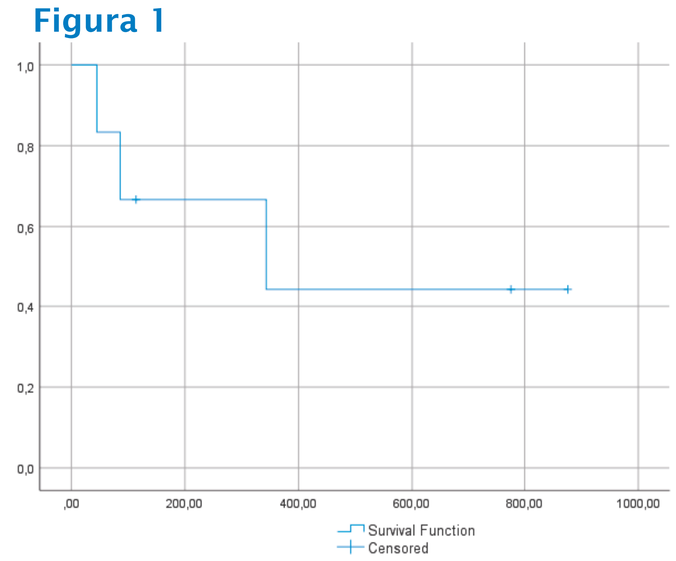


Figura 2

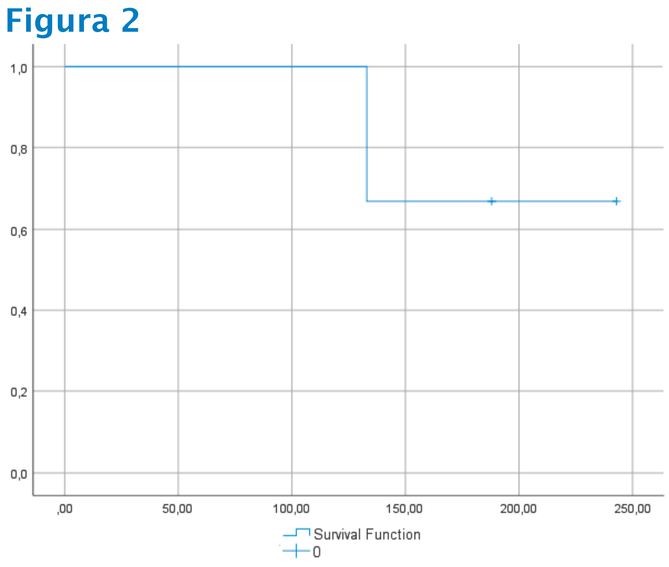


Figura 3

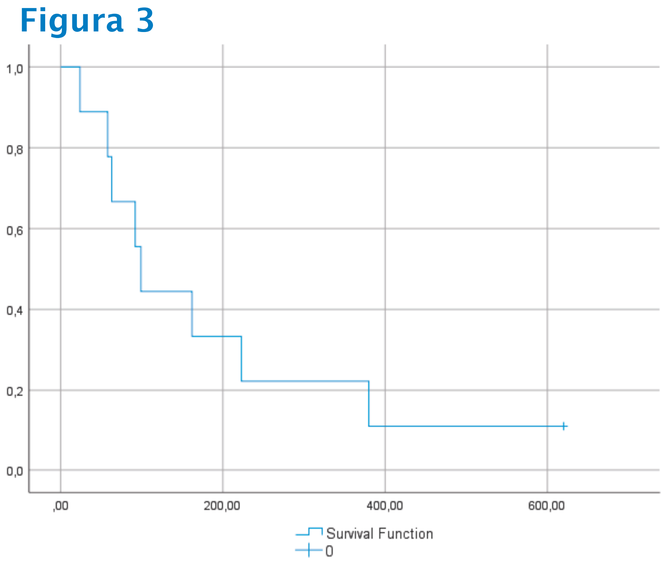
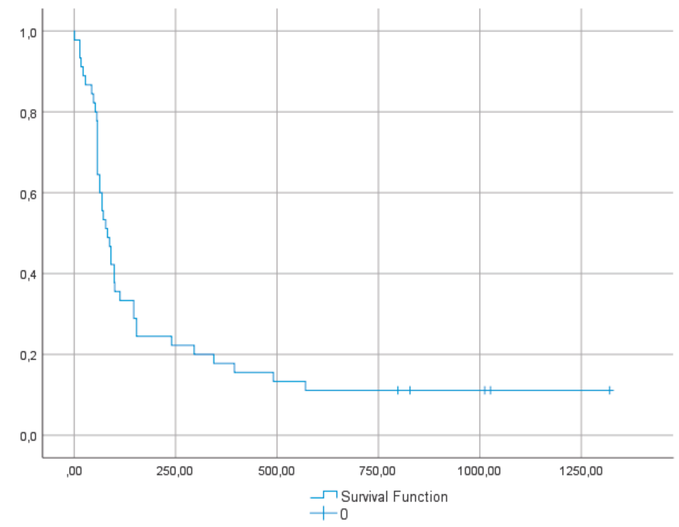


Figura 4



Conclusions

The three drugs have an efficacy similar to that demonstrated in clinical trials. The safety of the treatments is acceptable and similar to that published in the pivotal trials