

64P Post-progression evaluation of patients treated with nivolumab for advanced non-small cell lung cancer: A prospective cohort analysis

E. Quaquarini¹, L. Gervaso¹, F. Sottotetti¹, A. Bernardo¹, R. Palumbo¹, A. Gambaro², M. Frascaroli³, B. Tagliaferri¹, C.M. Teragni¹, D. Presti¹, C. Porta³

¹Medical Oncology, ICS S. Maugeri IRCCS, Pavia, Italy, ²Medical Oncology, Sacco Hospital, Milan, Italy, ³Translational Oncology, ICS S. Maugeri IRCCS, Pavia, Italy

Background: The aim of the present study is to investigate the efficacy of first treatment received after nivolumab in a cohort of patients affected by advanced non-small cell lung cancer (NSCLC).

Methods: This is a prospective, multicentre trial conducted between September 2015 and August 2018 at ICS Maugeri Hospital of Pavia (Italy) and Luigi Sacco Hospital in Milan (Italy) on patients who discontinued nivolumab due to disease progression or adverse events. The primary end-point was progression-free survival (PFS) to the first treatment given after nivolumab. Secondary endpoints were response rate (RR) to post-progression therapy and overall survival (OS).

Results: Eighty-four patients have been evaluated with the following baseline characteristics: median age 69 years (range 54–83); 66% males; 74% had an ECOG performance status (PS) 0-1; 82% had a metastatic disease; 45% received nivolumab as second-line treatment. Among the 38 patients eligible for post-nivolumab treatment analysis, 75% had an ECOG PS of 0-1; 75% had a metastatic disease; all patients received single agent chemotherapy (CT) (43% docetaxel, 27% vinorelbine, 30% gemcitabine). Median PFS of first-line post-nivolumab treatment was 4.5 months (range 3–16); RR was 33% and OS was 8 months (range 2–17). Patients who received nivolumab in earlier line, had higher PFS and RR to post-nivolumab treatments than patients who received nivolumab as ≥ 3 line (6 vs 3.5 months, 38% vs 28%, respectively, $p < 0.05$); OS was 9.5 vs 5.8 months, respectively. Moreover, patients who had a PFS ≥ 6 months to nivolumab treatment, had a better PFS and RR to the subsequent treatment than patients with shorter benefit to nivolumab (8.1 vs 3.3 months and 45% vs 26%, respectively, $p < 0.05$). This data is irrespective of the type of CT received.

Conclusions: This trial elicits a better performance of post-nivolumab treatments in patients who received nivolumab in earlier line and who get greater benefit to nivolumab. Some patients (about 20%) experienced also prolonged survival times under CT. This could be due to a long-term effect of immunotherapy on immune memory cells which might be boosted by the further CT lines.

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