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Nivolumab plus platinum-doublet chemotherapy as first-line therapy in unresectable, locally advanced or metastatic G3 neuroendocrine Neoplasms (NENs) of the gastroenteropancreatic (GEP) tract or unknown (UK) origin: Preliminary results from the phase II NICE-NEC trial (GETNE T1913)

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Background

Grade 3 (G3) NENs encompass a heterogeneous group of tumors with aggressive behaviour and poor survival. Standard front-line platinum-based chemotherapy (CT) has limited efficacy, with an ORR of 31%, a median PFS of 4-5 m and a median OS of 11 m. G3 NENs are associated with a high mutational burden and PD-L1 expression that might lead to a favorable response to immunotherapy (IT). The aim of this study is to assess the safety and potential synergy of the combination of CT plus IT in patients with advanced CT-naïve G3 NENs.

Methods

NICE-NEC is a non-randomized, open-label, phase II trial that recruited patients (pts) with histologically confirmed metastatic or unresectable G3 NENs of GEP/UK origin, treatment-naïve and ECOG 0-2 across 12 centers belonging to the Spanish Taskforce of Neuroendocrine Tumors (GETNE). Pts received Nivolumab 360 mg iv d1/ Carboplatin AUC 5 iv d1/ Etoposide 100 mg/m² d1-3 every 3 weeks (up to 6 cycles) followed by Nivolumab 480 mg every 4 weeks (up to 24 m) as maintenance tx. Primary endpoint was 12mOS rate. Secondary endpoints include ORR by RECIST 1.1, PFS and safety.

Results

From 2019-2021, 38 pts were enrolled. Median age was 61y, 68% male, 29% ECOG 0, 53% poorly differentiated and 66% Ki67 >55%. 81.6% were GEP; pancreas 37%, stomach 16% and colorectum 16% were the most common sites. 74% had ≥2 metastatic organs involved. With a median follow up of 6 m, disease control rate (DCR) was 84% including an ORR of 50% (47% PR; 3% CR). Median and 6m-PFS rate were 5.7 m (95%CI: 5.1-7.8) and 39% (95%CI: 25-62), respectively. ≥G3 AEs were reported in 61% pts. Most frequent toxicities were hematological: neutropenia (53%), febrile neutropenia (10%) and anemia (11%).

Conclusions

Preliminary results show promising activity of adding Nivolumab to CT as first-line therapy for G3 NENs, with DCR of 84% and greater ORR than benchmark studies. Nivolumab did not significantly increase the toxicity profile of standard CT. Final survival results require further follow-up and translational studies are ongoing.

Clinical trial identification

EudraCT 2019-001546-18; NCT03980925.

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Legal entity responsible for the study

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