



## Addendum

# Addendum: Perri et al. Electrochemotherapy as a First Line Treatment in Recurrent Squamous Cell Carcinoma of the Oral Cavity and Oropharynx PDL-1 Negative and/or with Evident Contraindication to Immunotherapy: A Randomized Multicenter Controlled Trial. *Cancers* 2021, 13, 2210

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**Comments:** We have some additional considerations about the recent published article by Perri et al. [1] in *Cancers* titled “Electrochemotherapy as a First Line Treatment in Recurrent Squamous Cell Carcinoma of the Oral Cavity and Oropharynx PDL-1 Negative and/or with Evident Contraindication to Immunotherapy: A Randomized Multicenter Controlled Trial”. The primary objective of the clinical trial is to verify the objective response rate of patients included in the two arms: the control arm involves the treatment of head and neck squamous cell carcinoma (HNSCC) with systemic treatment (cetuximab + platinum-based therapy + 5-fluorouracil), while the treatment arm involves the Electrochemotherapy (ECT) with bleomycin. All patients have histologically confirmed local recurrence, and are not eligible to surgery or irradiation. Recently, the results of KEYNOTE-048 study were published and a new combination of a monoclonal antibody named pembrolizumab and chemotherapy emerged as a standard first line therapy for recurrent or metastatic HNSCC that overexpress tissue programmed death 1 ligand (PDL-1). The keynote study was a randomized, phase 3 study of patients with untreated locally incurable HNSCC tumors [2] stratified by PDL-1 expression, p16 status, and performance status and randomly assigned (1:1:1) to pembrolizumab, pembrolizumab plus a platinum and 5-fluorouracil (pembrolizumab with chemotherapy), or cetuximab plus a platinum and 5-fluorouracil (cetuximab with chemotherapy). After a median follow-up of approximately 13 months, an increase in overall survival in patients with CPS (combined positive score)  $\geq 20$  (median 14.7 versus 11.0 months, two-year OS 35% versus 19%) and in those with CPS  $\geq 1$  (median 13.6 versus 10.4 months, two-year OS 31 versus 17%) was observed

in the pembrolizumab with chemotherapy group, compared with the cetuximab with chemotherapy group. A not statistically significant improvement in OS in the total study population (median 13.0 versus 10.7 months, two-year OS 29% versus 19%) was present. No relevant differences in progression free survival in patients with CPS  $\geq 20$  (median 5.8 versus 5.2 months) or CPS  $\geq 1$  (median 5.0 months each) were observed. Similar objective response rates (43 versus 38 percent for CPS  $\geq 20$ , 36 percent each for CPS  $\geq 1$ ), but longer duration of response in patients with any positive CPS (7.1 versus 4.2 months for CPS  $\geq 20$ , 6.7 versus 4.3 months for CPS  $\geq 1$ ) were found. Therefore, the study showed that therapy with pembrolizumab combined with chemotherapy is able to improve OS in the PDL-1 CPS of 20 or more, CPS of one or more, and total populations, and that it was associated with a longer duration of response, with a comparable objective response, PFS and safety profile compared to cetuximab with chemotherapy. Based on the observed efficacy and safety, pembrolizumab with platinum and 5-fluorouracil can be considered a new standard-of-care treatment for patients with recurrent or metastatic HNSCC [2].

For these reasons, we requested and obtained the authorization (0051703-28/04/2021-AIFA-AIFA\_USC-P), from the Italian Medicines Agency, for a substantial amendment to the clinical trial [1] in order to extend the study also to PDL-1-positive patients. These patients will be treated with a combination of pembrolizumab + systemic treatment (platinum and 5-fluorouracil). Inclusion and exclusion criteria were already described in [2], with the difference that the patients with recurrent HNSCC of the oral cavity and oropharynx should be candidate either to systemic therapy with cetuximab (PDL-1-negative and/or with evident contraindication to immunotherapy) or to immunotherapy with pembrolizumab (PDL-1-positive patients, CPS of 1 or more) [2]. The primary endpoint is to verify whether the treatment with ECT and bleomycin is superior in terms of objective response to treatment with cetuximab + therapy based on platinum + 5 fluorouracil, or alternatively to pembrolizumab + therapy based on platinum + 5 fluorouracil. The clinical response will be evaluated by RECIST 1.1 criteria on Computed Tomography and/or Magnetic Resonance images at 2 months from baseline.

Moreover, the study design foresees a cross-over to failure from the experimental arm and this would allow, in theory, an interesting treatment sequence, i.e., ECT followed by immunotherapy [3]. Recently, the combination of locoregional/cytoreductive therapeutic methods (such as stereotaxic/hypofractionated radiotherapy and ECT) and immunotherapy is being studied, the rationale of which would be given by a possible “abscopal” immunostimulating effect of cytoreductive treatment [4]. The study by Perri et al. would pave the way for a possible in vivo test related to this therapeutic approach.

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