Patients with Cancer and Preexisting Autoimmune and Inflammatory Diseases Treated by Anti-Programmed Death 1 (PD-1) Antibodies at Gustave Roussy Cancer Center

F-X. Danios, M. Najean, A-L. Voisin, M. Arabelle, M. Texier, O. Lambert. Laboratoire de Recherche Translational en Immunothérapie (LRT) – UMR1015; Département de biostatistique; Unité Fonctionnelle de Pharmacovigilance; DITEP – LRT – UMR1015, Gustave Roussy, Villejuif; Service de Médecine Interne et Immunologie Clinique, CHU Bicêtre, Kremlin-Bicêtre, France

Career situation of first and presenting author: Student for a master or a PhD.

Introduction: Immune checkpoint inhibitors anti-PD-1 are monoclonal antibodies used in cancers. PD-1 ligand/PD-1 pathway antagonism between cancer cells and antitumoral cytotoxic CD8 T cells increase antitumoral immunity but is involved in autoimmune diseases (AID).

Objectives: Evaluate tolerance and efficacy of anti-PD-1 in AID patients.

Methods: Patients had been included in REISAMIC registry (Registry of Severe Adverse Events of Immunomodulating Monoclonal Antibodies in Oncology) between June 1st, 2014, and December 31st, 2017. Patients were treated with anti-PD-1. Exclusion criteria were malignant hematologic disease, second advanced cancer or chronic viral infection. AID subtypes were defined for sensitivity analyses: diseases of clinical interest (DCI), prognostic interest (DPI) and vitiligo. One patient with pre-existing AID were matched on age, sex and cancer type with 3 patients without preexisting AID (controls). Analyses were adjusted for OMS status, corticosteroid, cerebral metastasis, LDH, albuminemia and neutrophil/lymphocyte ratio >3. Endpoints were grade ≥2 irAE free survival and overall survival (OS). Objective response rates (ORR) were described.

Results: 641 patients were included in REISAMIC. Among them, 69 patients were excluded. 572 patients had been included: 63 with AID and 509 controls. Among AID patients, we observed 38% DCI, 38% DPI and 24% vitiligo. DCI were Sjögren syndrome (n=4), rheumatoid arthritis (n=4), polymyalgia rheumatica/giant cell arteritis (n=2) and others. DPI were psoriasis (n=11), thyroiditis (n=8) and others. We matched 55 AID patients with 165 controls. Cancer type, TNM or AJCC grade, age and sex were similar between AID patients and controls. Overall survival (HR 0.67, IC95% [0.42–1.08], p=0.098) and irAE free survival (HR 1.27, IC95% [0.84–1.90], p=0.25) were not different between AID patients and controls. After vitiligo exclusion in sensitivity analyses, irAE free survival was shorter for AID patients than controls (HR 1.69, IC95% [1.01–2.87], p=0.05) and more for DPI patients only (HR 2.66, IC95% [1.01–7.1], p=0.049). ORR were 35.5% and 28.5% for AID patients and controls respectively.

Conclusions: Preexisting AID should not be a contraindication for anti-PD-1. We suspect that mechanisms involved in AID are important in irAE mechanism and antitumoral response. CD4 T cells and Th17 cells should be studied in these situations.

REFERENCE:

Disclosure of Interest: None declared.