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Authors: Artur Drobniak, Łukasz Stokłosa, Renata Pacholczak-Madej

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Combined immunotherapy for renal-cell carcinoma in geriatric patients – a case report of an 80-year-old man

Artur Drobniak¹, Łukasz Stokłosa^{1, 2, 3}, Renata Pacholczak-Madej^{1, 4, 5} 0000-0002-6535-4841

1. *Department of Chemotherapy, The District Hospital, Sucha Beskidzka, Poland*
2. *Department of Chemotherapy, The Specialistic Hospital, Nowy Targ, Poland*
3. *Department of the Thoracic Surgery, Pulmonary Hospital, Zakopane, Poland*
4. *Department of Gynecological Oncology, Maria Skłodowska-Curie National Research Institute of Oncology, Krakow Branch, Krakow, Poland*
5. *Department of Anatomy, Jagiellonian University, Medical College, Krakow, Poland*

Combined immunotherapy with nivolumab and ipilimumab has become the standard first-line therapy regimen for intermediate and poor-risk patients with renal cell carcinoma (RCC) specifically those with clear cell (ccRCC) and sarcomatous components. However, in the pivotal CheckMate 214 clinical trial [1], the median age of enrolled individuals was 62, and in a subgroup analysis, patients older than 65 years did not benefit from such treatment. Indeed, older patients are frequently excluded from combined immunotherapy in clinical practice primarily due to concerns regarding tolerability. An octogenarian patient with ccRCC diagnosed on a specimen obtained from a core needle biopsy presented to our Unit for further workup. A baseline computed tomography (CT) confirmed the disease stage as cT3aN1M1 (as illustrated in Figures 1a and 1b). Following the discussion in the multidisciplinary tumor board, the patient was deemed unsuitable for nephrectomy due to biological age and advancement of the disease. The patient was in good general condition, with a Karnofsky score (KS) of 70%, pharmacologically managed hypertension without any other comorbidities, and normal laboratory test results. According to the prognostic criteria of the International Metastatic Renal Cell Carcinoma Database Consortium (IMDC) [2], the patient fell into the intermediate-risk group (time from diagnosis to treatment <1 year and KS <80%). On June 26, 2022, he was qualified for immunotherapy with nivolumab and ipilimumab, adhering to the criteria of the National Drug Program (NDP) which regulates reimbursement policy for this treatment modality in Poland. The initial treatment cycles were well-tolerated, with no significant treatment-related adverse events (trAEs). The first CT scan, performed after four cycles of nivolumab (3 mg/kg every 3 weeks) and ipilimumab (1 mg/kg every 3 weeks), revealed partial response (PR) per the

immune Response Evaluation Criteria in Solid Tumors (iRECIST) criteria. Subsequently, the patient experienced general malaise grade 1 (G1, according to the Common Terminology Criteria for Adverse Events- CTCAE), kidney injury with increased creatinine level (G2), and hepatotoxicity with increased transaminase levels (G2), which did not influence the patient's general condition and did not preclude the continuation of maintenance monotherapy with nivolumab (480 mg every 4 weeks per protocol). These trAEs were successfully managed with treatment interruption. In summary, the patient received 11 cycles (4 in combination and 6 in monotherapy) with stable disease per iRECIST in the last CT scan (Figure 2a and 2b). Unfortunately, the patient was lost to follow-up and passed away a month after the last cycle (information elicited from medical records of NDP), likely due to underlying biological factors. This case highlights that chronological age alone should not be a direct contraindication for combined immunotherapy, as it may offer improved outcomes with manageable trAEs also in the elderly population.

Article information and declarations

Ethics statement

This case report involved the retrospective analysis of anonymized patient data, informed consent was not mandatory. Patient confidentiality was strictly maintained throughout the study, and all data were de-identified to protect patient privacy. This study adhered to the principles outlined in the Declaration of Helsinki and other relevant ethical guidelines. The authors affirm their commitment to conducting research with integrity and transparency, while prioritizing patient welfare and confidentiality.

Conflict of interest

None declared

Renata Pacholczak-Madej

Maria Skłodowska-Curie National Research Institute of Oncology

Department of Gynecological Oncology

ul. Garncarska 11

31-115 Kraków, Poland

e-mail: renata.pacholczak@uj.edu.pl

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References

1. Motzer RJ, Tannir NM, McDermott DF, et al. Nivolumab plus Ipilimumab versus Sunitinib in Advanced Renal-Cell Carcinoma. *New England Journal of Medicine*. 2018;378(14):1277–1290.
2. Heng DYC, Xie W, Regan MM, et al. External validation and comparison with other models of the International Metastatic Renal-Cell Carcinoma Database Consortium prognostic model: A population-based study. *Lancet Oncology*. 2013;14(2):141–148

Figure 1. A baseline computed tomography scan from May 17, 2022, revealed a 96-mm-sized primary tumor in the left kidney and a metastatic tumor in the left lung (1 A, B). The best overall response was achieved on April 25, 2023, showing a reduction in diameter in both target lesions (2 A, B).

