

Josef Dvorak

Charles University and Thomayer Hospital, Czech Republic



2nd International Conference on

Cancer Science & Pediatrics

February 19-20, 2019 | Prague, Czech Republic

NEGATIVE PROGNOSTIC SIGNIFICANCE OF PRIMARY CILIA, CD8+ TUMOR INFILTRATING LYMPHOCYTES AND PD1+ CELLS EXPRESSION IN CLEAR CELL RENAL CANCER

Statement of the Problem: Primary cilia are specialized sensory microtubule-based organelles that project from the surface of almost all human cells except hematopoietic cells. Primary cilia are considered to represent a functional homologue of the immune synapse due to morphological and functional similarities in architecture. The aim of this study was to investigate the potential association and combined prognostic significance of the frequency of primary cilia (PC), programmed cell death protein-1 receptor (PD1) and CD8+ tumor infiltrating lymphocytes (TIL) in patients with clear cell renal cancer (ccRCC). **Methods:** The frequency of PC, PD1 expression and the frequency of intratumoral CD8+TIL were evaluated in 104 ccRCC patients. **Results:** The expression of PD1+ cells was <5% in 52 patients, 5-25% in 34 patients and 26-50% in 13 patients and >50% in 5 patients. Intratumoral CD8+ TIL were evaluable in all patients: negative in 1 patient, <25% in 63, 26-50% in 29 and >50% in 11 patients, respectively. Overall survival (OS) according to frequency of PC was significantly shorter in patients with higher frequency (≥ 0.002) than in patients with lower frequency (< 0.002) ($p < 0.001$). Median OS according to intratumoral CD8+ TIL expression was significantly shorter in patients with higher expression >25% median OS 4.6 years than in patients with lower expression <25% median OS 9.7 years ($p = 0.006$). Median OS according to PD1+ expression was significantly shorter in patients with higher expression >25% median OS 2.9 years than in patients with lower expression <25% median OS 8.9 years ($p = 0.006$).

Conclusion & Significance: The present study provides the first data on the potential association and combined prognostic significance of frequency of PC, PD1+ cells and CD8+ TIL in patients with clear cell renal cancer. These findings are of importance in light of the recent advances that introduced immunotherapy as a major approach in metastatic RCC.

Biography

Josef Dvorak, MD, PhD is an associate professor in the Department of Oncology, First Medical Faculty, Charles University and Thomayer Hospital, Prague, Czech Republic. Dr. Dvorak obtained his MD and PhD at the Charles University Prague. Dr. Dvorak's scientific focus is on clinical and translational research in gastrointestinal and renal cancer, the optimization of multimodal care. In basic oncology research he is interested in primary cilia.

josef.dvorak@ftn.cz