

# Assessment of PD-L1 Expression in Patients With Neuroblastoma and Renal Tumors

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## Abstract

Introduction: Programmed death 1 (PD-1) is a co-receptor which is located at the surface of cells like natural killer, monocytes, T and B cells. It has two ligands including programmed death ligand-1 (PD-L1) and ligand-2 (PD-L2). T cell functions are inhibited by activation of PD-1/PD-L1 pathway and this pathway is used by viruses and some tumor cells in order to escape from immune eradication. In our study we evaluated PD-L1 expression in the tissue specimens of patients with Wilms tumor, neuroblastoma and other renal tumors. Material and Methods: Totally 60 patients who were followed up at Gazi University Hospital with the diagnosis of neuroblastoma, Wilms tumor and other renal tumors were included. PD-L1 expression was examined in tumor samples of the patients. Results: Positive staining with PD-L1 was detected only in two male patients. Both of them had neuroblastoma and advanced stage disease. None of the patients with Wilms tumor and other renal tumors had positive PD-L1 staining. Conclusion: Unlike adult tumors; PD-L1 expression is not common in childhood tumors due to differences in immune system between children and adults. Further studies are needed to establish the importance and effects of PD-1/PD-L1 pathway in pediatric tumors.

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