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Cranial Nerve Involvement and Thalamic Lesions in West Nile Virus Encephalitis in a Kidney Transplant Recipient: Implications for Diagnosis and Prevention

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To the Editor,

We read with great interest the case report by Gorgulu et al.,[1] titled "West Nile Virus Encephalitis in a Kidney Transplant Patient," published in the *Journal of Critical and Intensive Care* 2025;16(3):138–141. The authors describe a rare case of West Nile virus (WNV) encephalitis in an immunosuppressed kidney transplant recipient who presented with fever, altered mental status, and progressive neurological deterioration. This report contributes significantly to the Turkish intensive care literature by illustrating the diagnostic challenges in immunosuppressed patients and the high mortality risk of neuroinvasive WNV disease.[1]

The most notable feature of this case is the simultaneous presence of bilateral thalamic lesions and contrast enhancement in the cisternal segments of the right trigeminal nerve and bilateral oculomotor nerves on MRI. While thalamic and basal ganglia hyperintensities are well recognized in WNV encephalitis, their combination with cranial nerve involvement—particularly of the trigeminal and oculomotor nerves—is rarely highlighted in the imaging literature. Although cranial nerve neuropathies (e.g., facial or abducens) have been reported in neuroinvasive WNV,[2] the specific pattern of cisternal enhancement involving the trigeminal and oculomotor nerves, alongside thalamic lesions, appears to be uncommon. In immunosuppressed hosts, this pattern may reflect meningoencephalitis with perineural spread and could serve as a highly suggestive radiological marker of WNV infection. This observation warrants validation in larger multicenter case series of immunocompromised patients.

Additionally, the occurrence of infection 36 months after transplantation further supports the possibility of donor-derived or transfusion-transmitted WNV.[3] Turkiye experienced its largest WNV outbreak in 2024, with 51 cases reported in a multicenter series and a case fatality rate of 17.6% (all fatal cases involved advanced age and comorbidities).[4] Given Turkiye's endemic status and the increasing number of cases reported across Europe, routine WNV screening for organ donors and recipients remains nonstandard.[3,4] This case highlights the urgent need for a practical diagnostic algorithm: WNV PCR in cere-

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brospinal fluid should be routinely included in the meningoencephalitis panel for all immunosuppressed patients presenting with fever and altered consciousness, irrespective of season, and should be accompanied by prompt reduction of immunosuppression when indicated.[5]

We commend the authors for this insightful and unusual case report. Their findings emphasize the importance of reviewing WNV screening protocols in transplant centers and raising awareness of atypical radiological patterns in neuroinvasive viral infections among immunosuppressed patients. Multicenter prospective studies are necessary to enhance both diagnostic and preventive strategies.

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