Title: *The Paradox & the Price: Renal Fallout of Immune Triumph in Cancer Care*

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Background & Aims: Immune checkpoint inhibitors (ICIs) have redefined survival in advanced cancers, offering unprecedented therapeutic gains. Yet, by reactivating T-cell immunity, they may inadvertently breach self-tolerance, placing the kidney at risk. This study investigates the clinical burden, pathological spectrum, and renal outcomes of ICI-associated nephrotoxicity in real-world oncology care.

Methods: Five hundred adult patients receiving ICIs (nivolumab, pembrolizumab, atezolizumab, or durvalumab) for solid tumors were enrolled and monitored over six months at a tertiary care centre in Delhi. Renal dysfunction was identified via KDIGO criteria and urinalysis. Kidney biopsies were performed when clinically indicated.

Results: Renal injury occurred in 12% (n = 60) of patients. Acute interstitial nephritis (AIN) was the most common phenotype (70%), followed by glomerular pathologies (20%) and others (10%). Among biopsied patients (n = 12), ATIN was observed in 33.3%, while minimal change disease and FSGS were each observed in 25%. Although 46.7% presented with Stage I AKI, 20% progressed to Stage III. Key risk factors included diabetes (28.8%), PPI co-administration, and dual ICI regimens. Renal recovery was achieved in 66.7% of affected patients with immunosuppressive therapy, while 25% progressed to chronic kidney disease and 8.3% died during follow-up.

Conclusion: This study, among the largest Indian cohorts assessing ICI nephrotoxicity, highlights a clinically silent but consequential complication of cancer immunotherapy. While the therapeutic checkmate of malignancy is often celebrated, it may come at the cost of renal injury. Vigilant renal surveillance, early detection, and prompt management are essential to avoid treatment-limiting outcomes. In the era of immunologic precision, the kidney must no longer remain an unintended target.