

Fig. 1 The clinical course and serum creatinine change after the initiation of Nivolumab therapy

* Common Terminology Criteria for Adverse Events (CTCAE)

* Methylprednisolone was applied for suspected IRAE nephritis

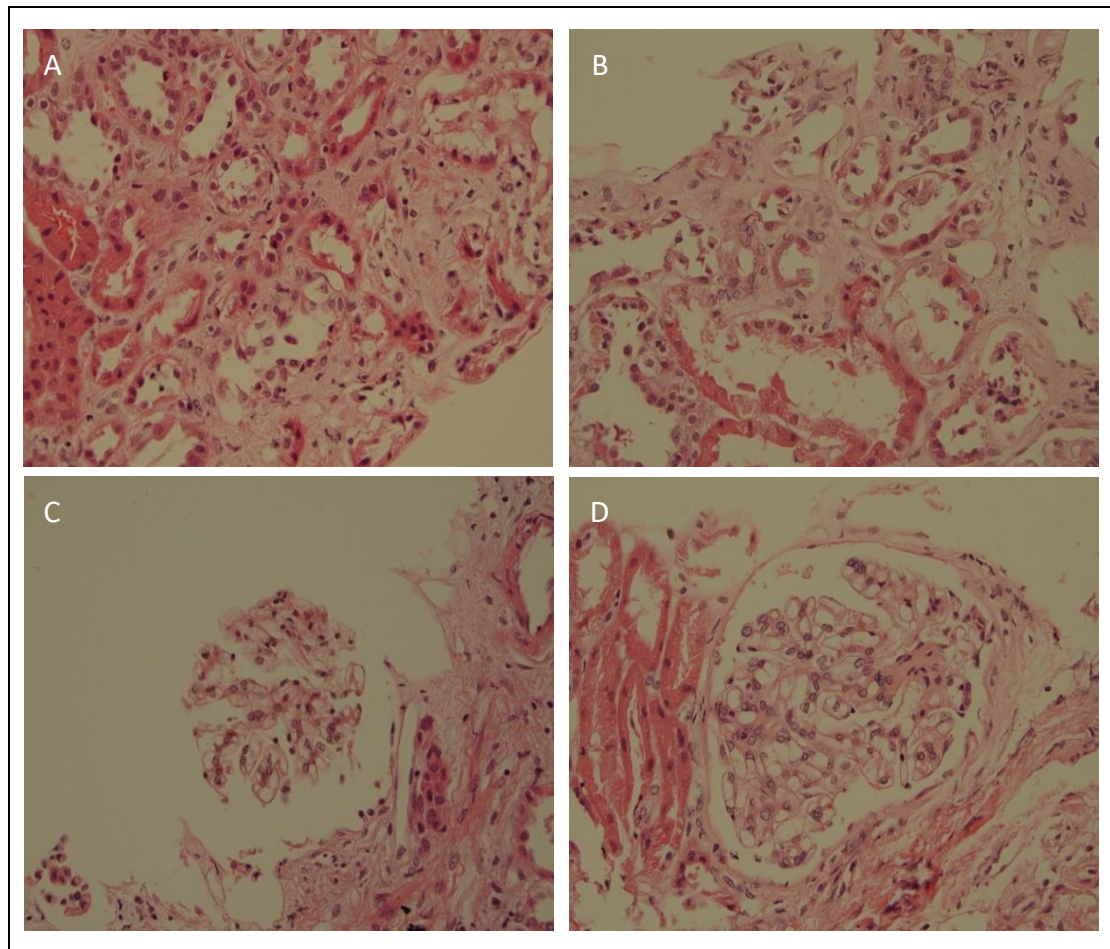


Fig. 2. Kidney biopsy showed acute tubular injury.

Tubules showed anisonucleosis, attenuation of tubular cells, and lumen dilatation.

There is no tubulointerstitial nephritis. (A B)

Glomeruli are unremarkable, and here is no immune complex mediated glomerulonephritis nor thrombotic microangiopathy. (C D)

Category	LTT test value			
	GNLY fold change	Granzyme B fold change		
			reference value	
Nivolumab	17.6	> Max	+/-	(1~1.5)
Ipilimumab	1.32	1.6	+	(1.5~2)
Pembrolizumab	2.93	105.37	++	(2~3)
PHA	3.83	2.53	+++	(>3)

Tab. 1. Lymphocyte transformation test