

Supplement Materials

Supplement Figure 1 An inclusion flow chart of our two clinical trials.

Supplement Figure 2 Overall survival and progression-free survival of patients in different grade of CRS (A) and of the toci and without toci groups in the total (B), grade 1 CRS (C), grade 2 (D) and grade3-5 (E) CRS of patients. There is no significantly difference among all groups.

Supplement Figure 3 Peaks level of IL-6, IL-10, IL-2, IL-4, TNF- α , IFN- γ , CRP and FER before and after the use of tocilizumab

Supplement Figure 4 Biomarkers related to CRS

Peak concentration and foldchange of cytokines and inflammatory factors were evaluated between patients with or without CRS. The peak concentration of IL-6 in patients receiving Tocilizumab was defined as the maximum before treatment. The peak concentration of IL-6 (C) in patients without Tocilizumab and IL-2 (A), IL-4 (B), IL-10 (D), TNF- α (E), IFN- γ (F), CRP (G), FER (H) in all patients was defined as the maximum in one month after infusion.

Supplement Figure 5 Kinetics of biomarkers related to CRS

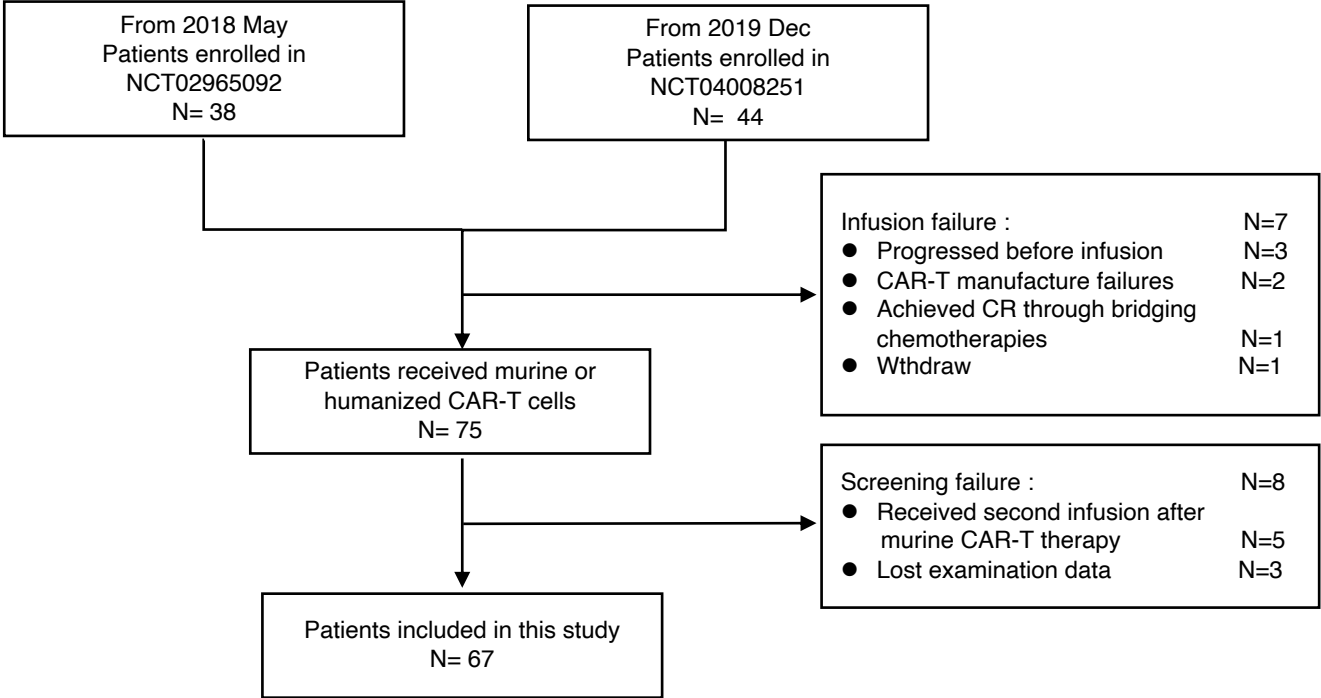
Dynamic changes of IL-2, IL-4, IL-6, IL-10, TNF- α , IFN- γ , CRP, FER in all patients with or without CRS. A significant increase of IL-6 and IL-10 was observed in CRS group.

Supplement Figure 6 Tocilizumab induced severe infection in high level group of CRP. There was no significantly difference between patients with toci and without toci except for one. (A) Duration of CRS, incidence of severe infection and ICANS, objective response rate in short-term, overall survival and progression-free survival in long term were compared between patients with or without toci in high level group of CRP; (B) Duration of CRS, incidence of severe infection and ICANS, objective response rate in short-term, overall survival and progression-free survival in long term were compared between patients with or without toci in low level group of CRP

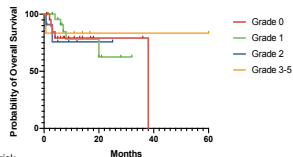
Supplement Figure 7 There was no significantly difference between patients with toci and without toci. (A) Duration of CRS, incidence of severe infection and ICANS, objective response rate in short-term, overall survival and progression-free survival in long term were compared between patients with or without toci in high level group of IL-10; (B) Duration of CRS, incidence of severe infection and ICANS, objective response rate in short-term, overall survival and progression-free survival in long term were compared between patients with or without toci in low level group of IL-10

Supplement Figure 8 There was no significantly difference between patients with toci and without toci. (A) Duration of CRS, incidence of severe infection and ICANS, objective response rate in short-term, overall survival and progression-free survival in long term were compared between patients with or without toci in high level group of FER; (B) Duration of

CRS, incidence of severe infection and ICANS, objective response rate in short-term, overall survival and progression-free survival in long term were compared between patients with or without toc in low level group of FER

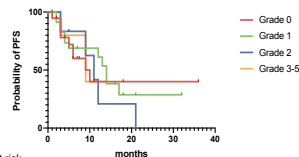


(A)



Number at risk				
Grade 0	23	3	0	0
Grade 1	27	5	0	0
Grade 2	11	2	0	0
Grade 3-5	6	1	1	1

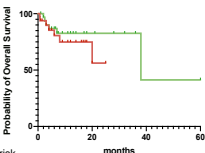
Grade 0/Garde 1
HR 1.096 (95%CI 0.3141-3.756) P=0.8888
Grade 0/Garde 2
HR 0.7194 (95%CI 0.1215-4.259) P=0.6822
Grade 0/Garde 3-5
HR 1.802 (95%CI 0.2940-11.05) P=0.5742



Number at risk				
Grade 0	19	5	2	2
Grade 1	24	9	2	1
Grade 2	11	3	1	0
Grade 3-5	5	2	0	0

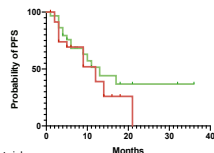
Grade 0/Garde 1
HR 1.100 (95%CI 0.4604-2.629) P=0.8226
Grade 0/Garde 2
HR 0.8535 (95%CI 0.2781-2.620) P=0.7669
Grade 0/Garde 3-5
HR 1.156 (95%CI 0.3271-4.087) P=0.8136

(B)



Number at risk				
Toci	32	4	0	0
Without toci	35	7	1	1

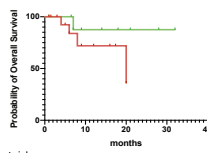
Toci/Without toci
HR 1.716 (95%CI 0.5669-5.193) P=0.3093



Number at risk				
Toci	28	8	1	0
Without toci	30	11	4	3

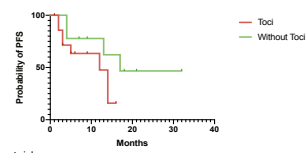
Toci/Without toci
HR 1.399 (95%CI 0.6712-2.916) P=0.3426

(C)



Number at risk				
Toci	17	5	2	0
Without toci	10	5	3	1

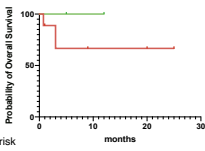
Toci/Without toci
HR 3.855 (95%CI 0.6677-22.29) P=0.1863



Number at risk				
Toci	15	4	0	0
Without toci	9	5	2	1

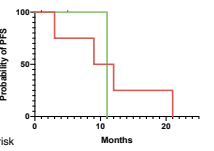
Toci/Without toci
HR 2.286 (95%CI 0.7355-7.107) P=0.1309

(D)



Number at risk				
Toci	9	2	2	
Without toci	2	1	0	

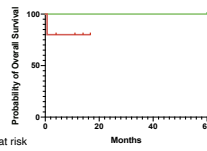
Toci/Without toci
HR undefined P=0.3977



Number at risk				
Toci	8	2	1	
Without toci	2	1	0	

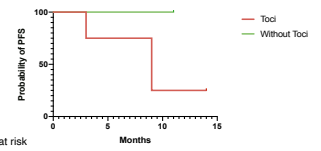
Toci/Without toci
HR 0.8980 (95%CI 0.09321-8.651) P=0.9165

(E)



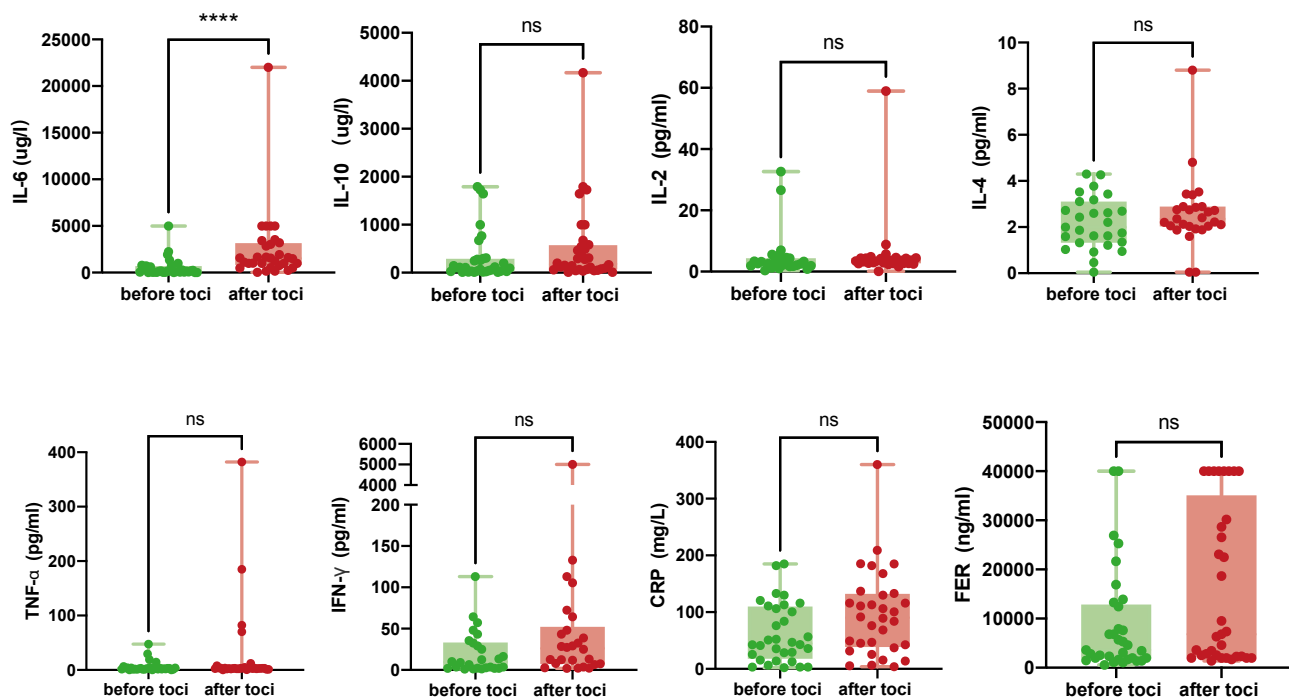
Number at risk				
Toci	5	0	0	0
Without toci	1	1	1	1

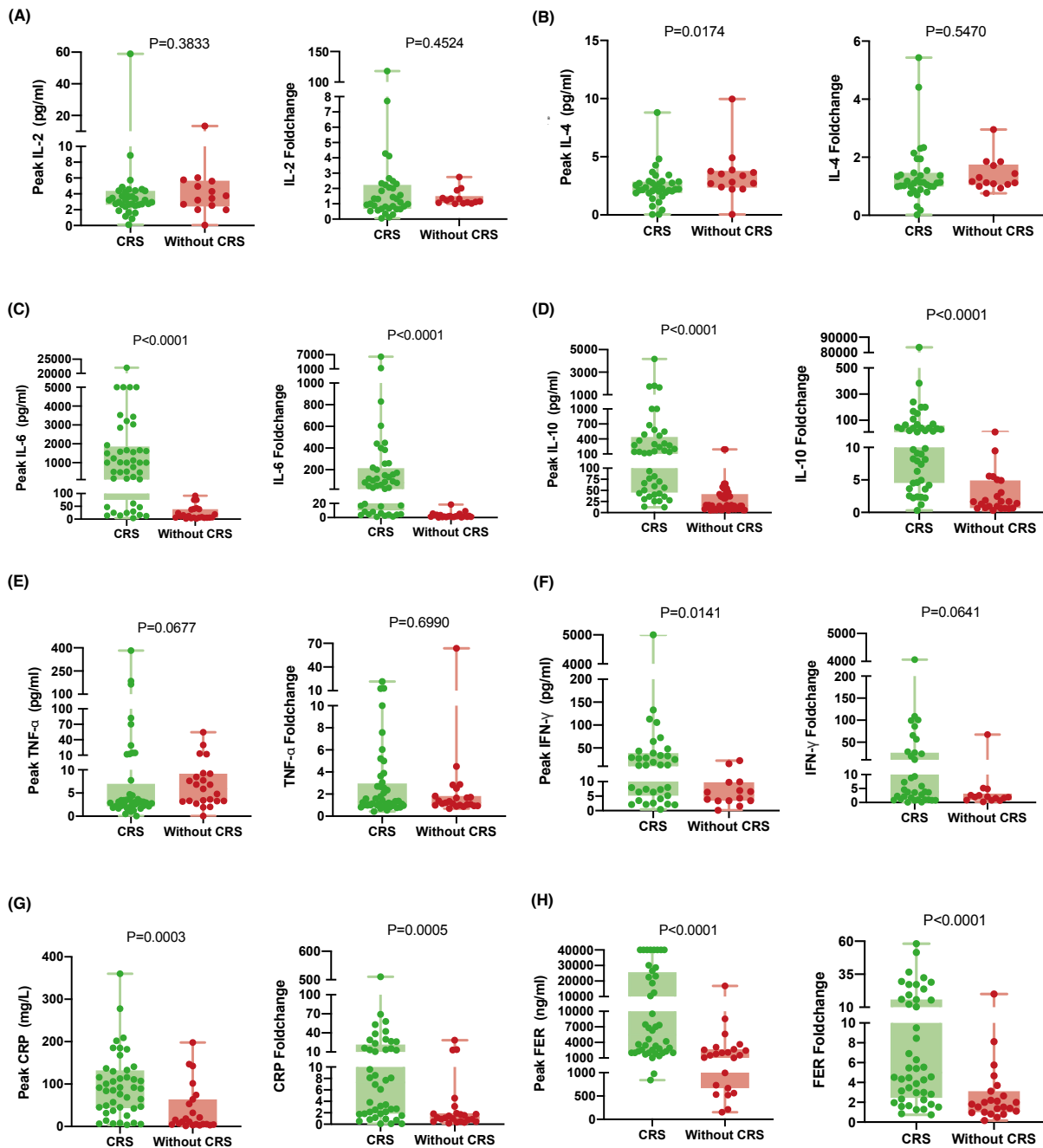
Toci/Without toci
HR undefined P=0.6547

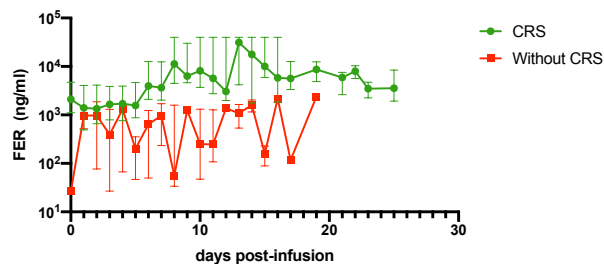
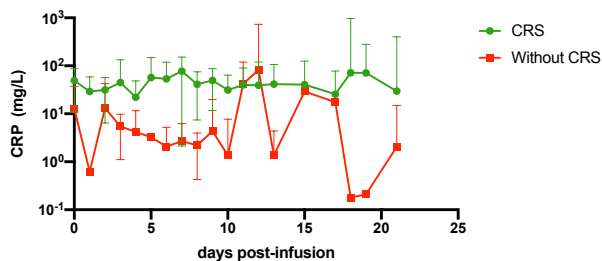
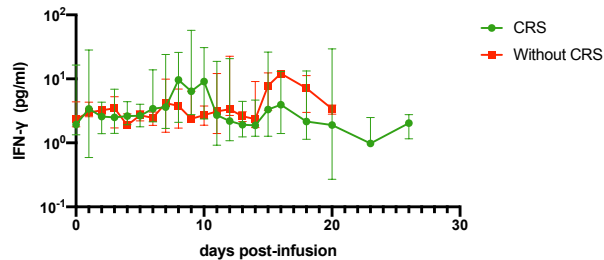
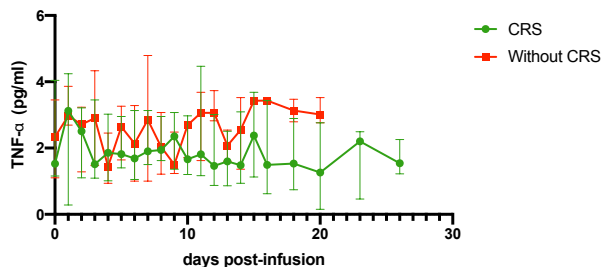
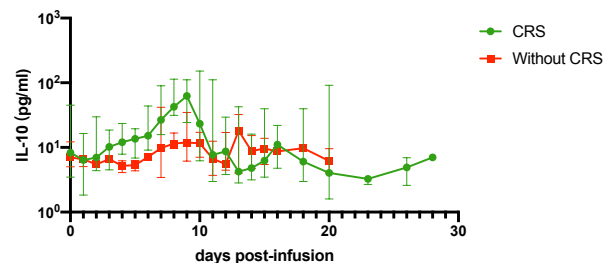
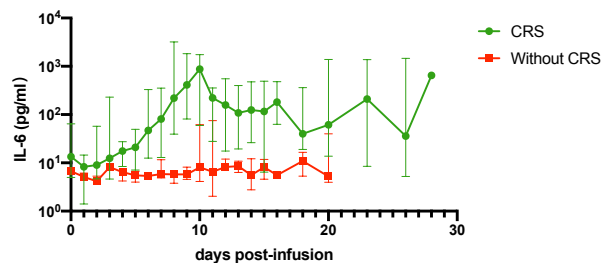
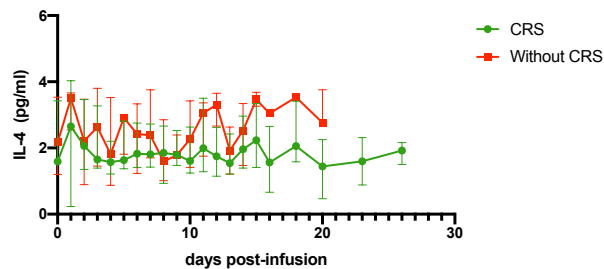
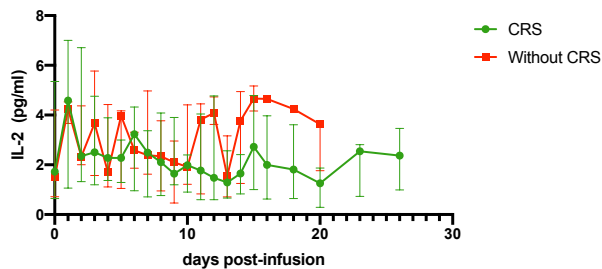


Number at risk				
Toci	4	3	1	0
Without toci	1	1	1	0

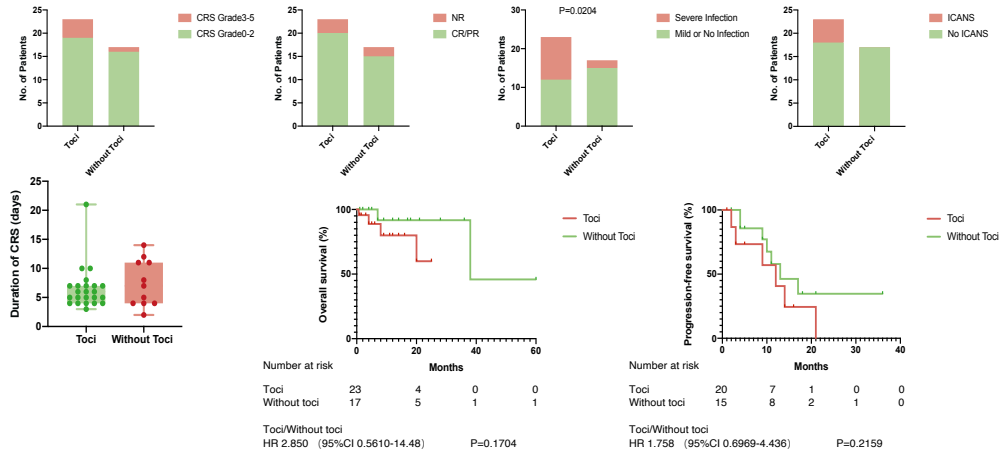
Toci/Without toci
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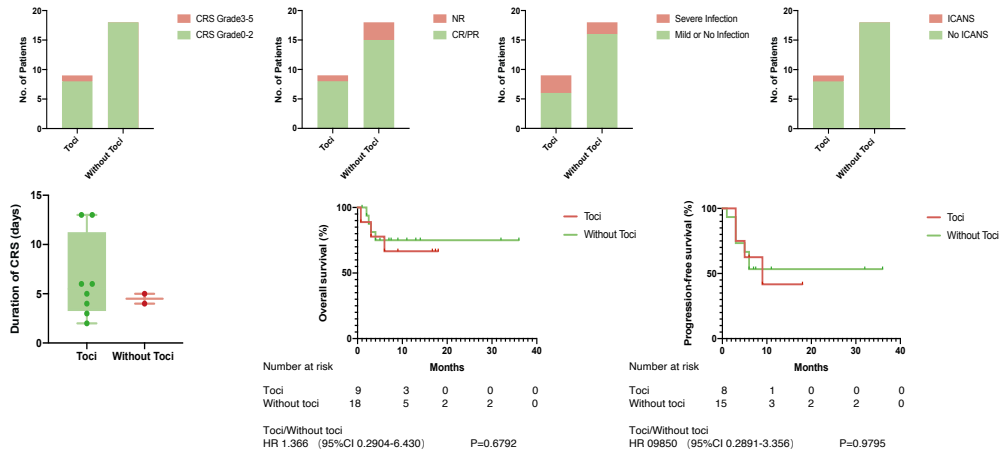




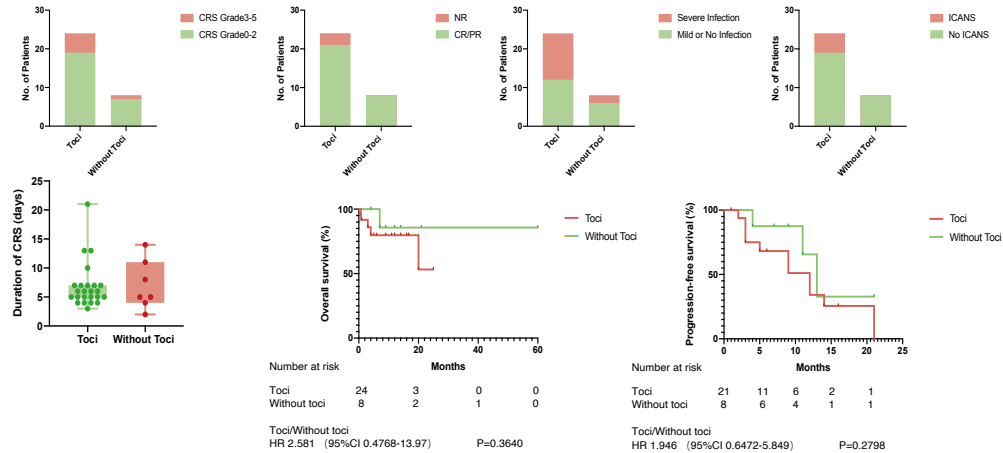
(A)



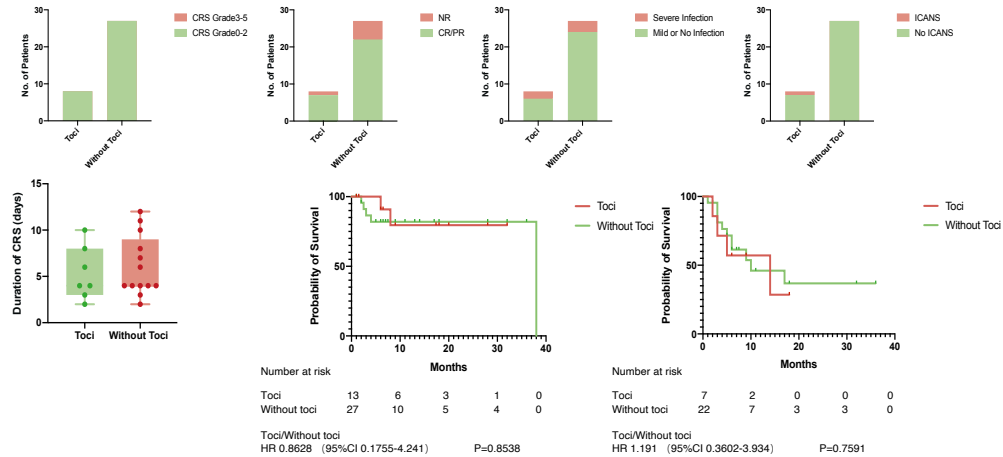
(B)



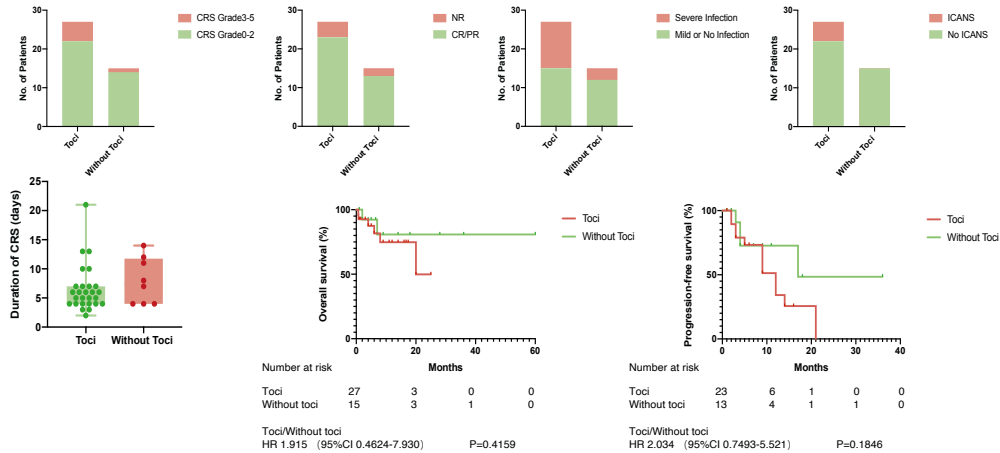
(A)



(B)



(A)



(B)

