Supplementary file: per-protocol analysis

Renal function

Variation in serum creatinine during the study showed a significant decrease in serum creatinine during the study (-4.35, 95% CI [-8.55; -0.15] p=0.042), with no significant between-group differences (-10.56, 95% CI [-88.51; 67.38], p=0.790). Similar results were observed with estimated glomerular filtration rate (eGFR) calculated by the Modification of Diet in Renal Disease (MDRD) equation. The median serum creatinine level [Q1; Q3] at 12 months was 157 µmol/L [134; 224] and 158 µmol/L [119.5; 197.5] in the rituximab and placebo groups, respectively. eGFR was increased but not significantly during the study (0.045 ml/mn/1.73 m², 95% CI -0.005; 0.096 ml/mn/1.73 m², p=0.075), with no significant between-group differences (0.24 ml/mn/1.73 m², 95% CI -0.72; 1.19 ml/mn/1.73 m², p=0.628). At 12 months, the eGFR was > 30 ml/mn/1.73 m² for 78.3% (18/23) and 80.0% (8/10) of the rituximab and placebo groups, respectively (p=1.00). At 12 months, the eGFR was > 60 ml/mn/1.73 m² for 17.4% (4/23) and 20.0% (2/10), respectively (p=1.00).

Proteinuria

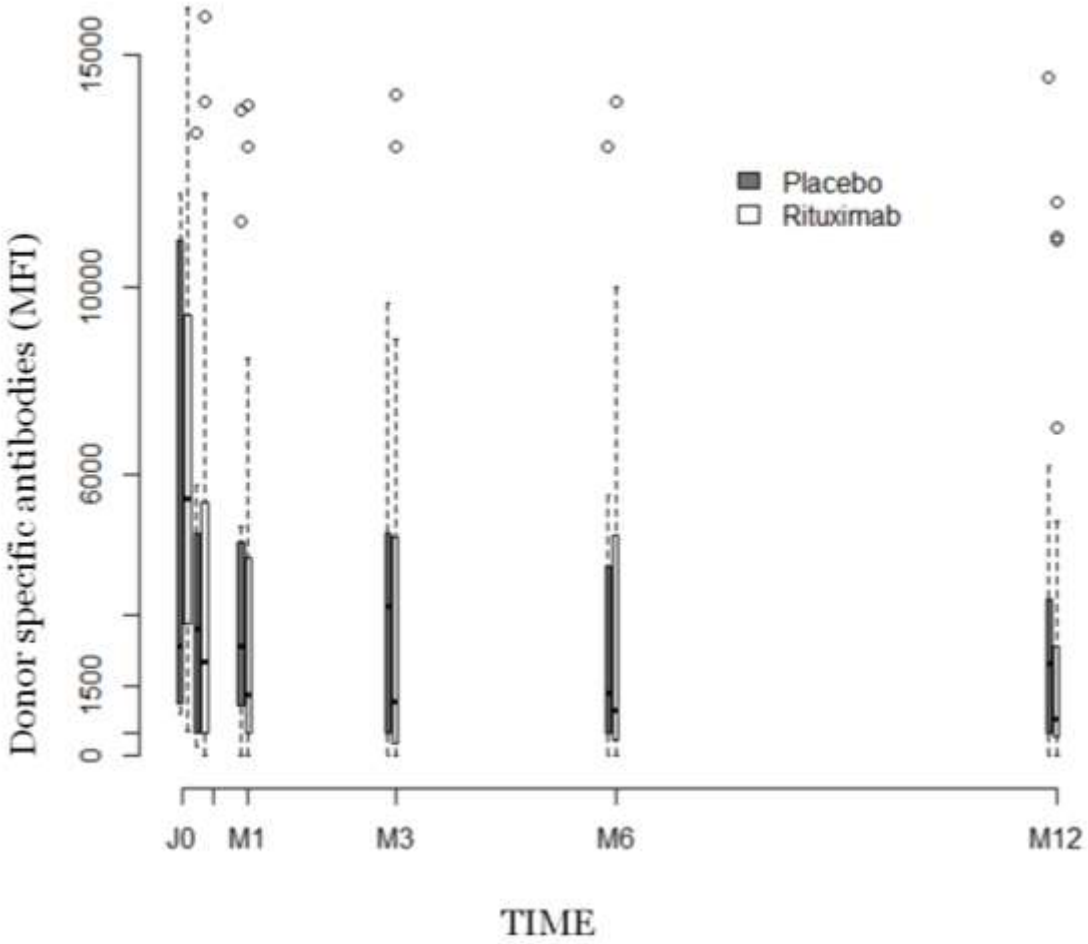
At 12 months, proteinuria <0.3 g/d was 69.2% (18/26) versus 54.5.2% (6/11), rate 0.3 to 1.0 g/d was 7.7% (2/26) versus 36.4% (4/11) and rate > 1.0 g/d was 23.1% (6/26) and 9.1% (1/11) for the rituximab and placebo groups, respectively, with no significant difference (p=0.123).

Donor-specific antibodies (DSAs)

We found a significant decrease in mean fluorescence intensity (MFI) during the study (-1.85 [-2.78; -0.92] p=0.0001), with no significant between-group differences (-2.38, 95% CI -23.76; 18.99, p=0.8265). Figure I shows the distribution by threshold of MFI in the rituximab

and placebo groups concerning the last serum analysis of immunodominant DSAs (iDSAs) during the study. iDSA with MFI < 1500 at the last measurement was more frequent in the rituximab than placebo group (11/19 [57.9%] vs 3/7 [42.9%]) at the last serum analysis of iDSA during the study (Figure S1).

Figure S1: Per-protocol analysis of mean fluorescence intensity of immunodominant donor-specific antibodies over 1 year in the rituximab and placebo groups.



Box height indicates the IQR with the lower and upper edges of the box representing the 25th and 75th percentiles, respectively. The horizontal line is the median. The lower whisker represents the 25th percentile minus 1.5 times the IQR and the upper whisker the 75th percentile plus 1.5 times the IQR. Values outside the whiskers are outliers.

Histological changes

Table S1: Per-protocol analysis of Banff scores at inclusion and months 1 and 6

	Rituximab group			Placebo group		
	Inclusion	Month 1	Month 6	Inclusion	Month 1	Month 6
g (glomerulitis)	1.0 ± 1.0 (n=27)	0.6 ± 0.7 (n=24)	0.6 ± 1.0 (n=21)	0.8 ± 0.9 (n=11)	0.4 ± 0.7 (n=8)	1.1 ± 1.2 (n=7)
v (intimal arteritis)	0.3 ± 0.7 (n=26)	0.0 ± 0.0 (n=23)	0.0 ± 0.0 (n=20)	0.3 ± 0. 7 (n=11)	0.0 ± 0.0 (n=8)	0.3 ± 0.5 (n=7)
ptc (peritubular capillaritis)	1.4 ± 1.1 (n=27)	0.8 ± 0.9 (n=24)	0.9 ± 1.0 (n=21)	1.4 ± 0.8 (n=11)	1.1 ± 0.8 (n=8)	1.3 ± 1.3 (n=7)
g+ptc	2.4 ± 1.7 § (n=27)	1.4 ± 1.2 (n=17)	1.5 ± 1.7 # (n=21)	2.2 ± 1.3 § (n=11)	1.5 ± 1.3 (n=8)	2.4 ± 2.2 # (n=7)
C4d deposits, *no. (%)*	85.2% (23/27)	39.1% (9/23)	25.0% (5/20)	81.8% (9/11)	50.0% (4/8)	14.3% (1/7)
cg (glomerulopathy)	0.2 ± 0.4 (n=27)	0.1 ± 0.4 (n=24)	0.2 ± 0.6 (n=21)	0.0 ± 0.0 (n=11)	0.0 ± 0.0 (n=8)	0.1 ± 0.4 (n=7)
cv (vascular fibrous intimal thickening)	0.5 ± 0.9 (n=25)	0.6 ±0.9 (n=24)	0.5 ± 0.6 (n=19)	1.0 ± 1.1 (n=11)	1.0 ±1.4 (n=8)	1.0 ± 1.2 (n=7)
ci (interstitial fibrosis)	0.5 ± 0.7 (n=26)	0.7 ± 1.0 (n=23)	1.1 ± 0.9 (n=21)	0.6 ± 0.7 (n=11)	0.6 ± 0.7 (n=8)	1.5 ± 1.1 (n=6)
ct (tubular atrophy)	0.5 ± 0.7 (n=26)	0.7± 0.9 (n=24)	0.9 ± 0.8 (n=21)	0.4 ± 0.7 (n=11)	0.4 ± 0.5 (n=8)	1.6 ± 1.0 (n=7)
ci + ct	1.0 ± 1.3 * (n=26)	1.4 ± 1.7 (n=24)	2.0 ± 1.7 # (n=21)	0.9 ± 1.3 * (n=11)	1.0 ± 1.1 (n=8)	3.0 ± 2.1 # (n=6)

Data are mean±SD unless indicated.

* significant difference in the ci+ct score between inclusion and 6 months in the placebo and rituximab groups (p=0.040 and p=0.031, respectively).

§ no significant difference in the g+ptc score between inclusion and 6 months in the placebo and rituximab groups (p=0.963 and p=0.081, respectively).

no significant difference in the ci+ct and g+ptc scores between the rituximab and placebo groups at 6 months (p=0.0.279 and p=0.297, respectively).