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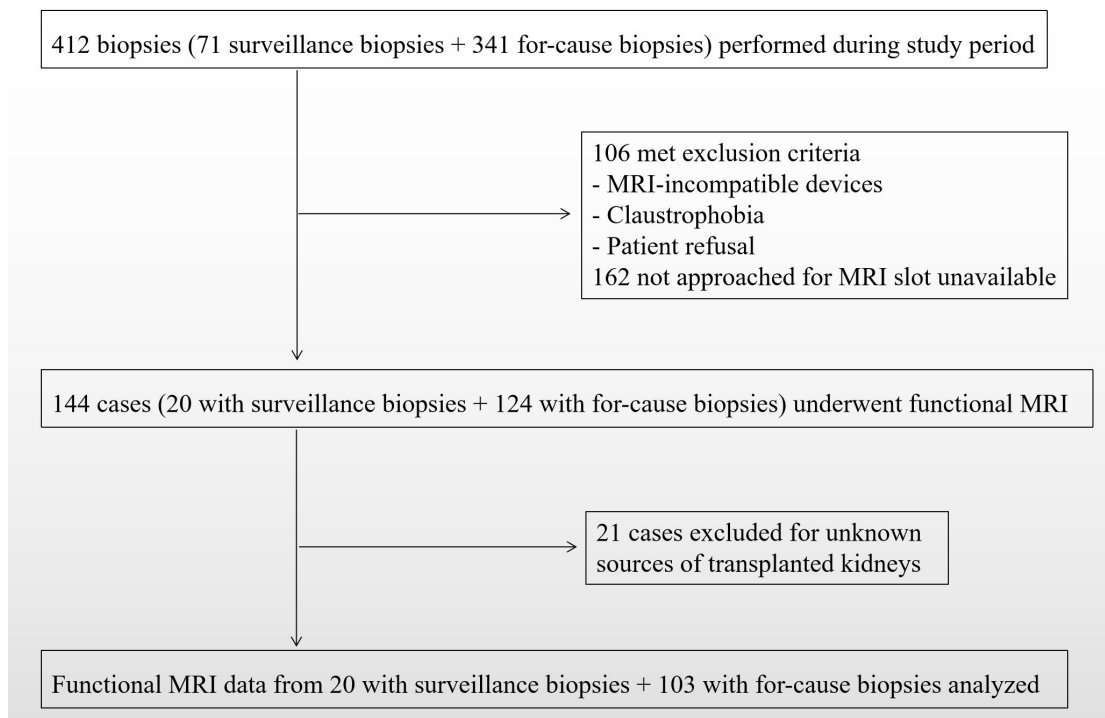
Supplemental Figure 2: Typical example of peritubular capillary density measurement using Aperio Microvessel algorithm. An annotation layer of tubulointerstitium was created by manually drawing areas of interest that excluded glomeruli and interstitial large vessels on digitally scanned CD34-immunostained slides. By using the Aperio Microvessel algorithm, the peritubular capillary was highlighted and related parameters could be automatically calculated.

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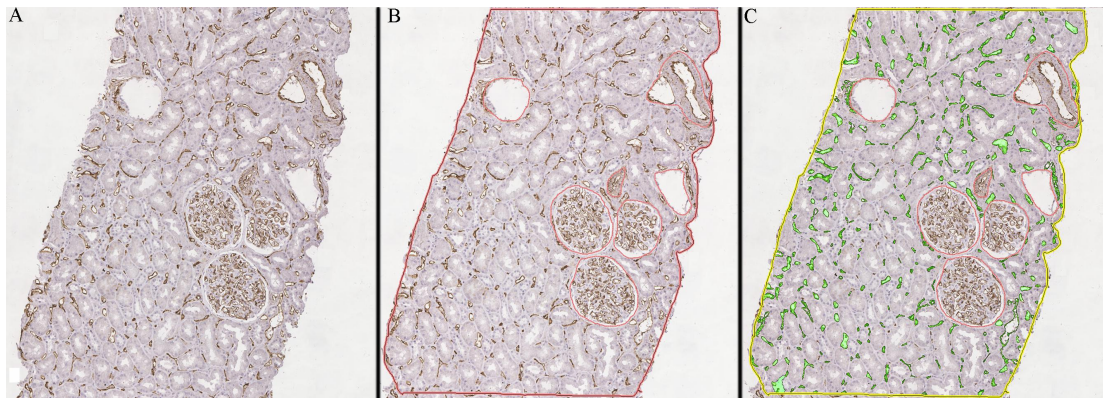
Supplemental Table 1: Imaging modalities and corresponding parameters used in this study.

	T1-WI	T2-WI	BOLD	DWI	ASL
Sequence type	SSFSE	FS Propeller	MFGR	DW-EPI	pCASL
Imaging plane	Coronal	Axial	Coronal	Axial	Axial
Flip angle (°)	90	110	60	90	111
TE (ms)	67	74	2.1, 4.8, 7.5, 10.3, 13.0, 15.7, 18.5, 21.2, 23.9, 26.6, 29.3, 32	88	10.5
TR (ms)	2625	6667	200	3333	4629
Slice thickness (mm)	4	7	5	6	4
Spacing (mm)	1	1	5	1	0
Matrix	288×288	320×320	128×128	224×128	512×8
Field of view (cm ²)	40×36	36×36	36×36	38×30.4	34×34
NEX	0.53	2.5	1	2	3

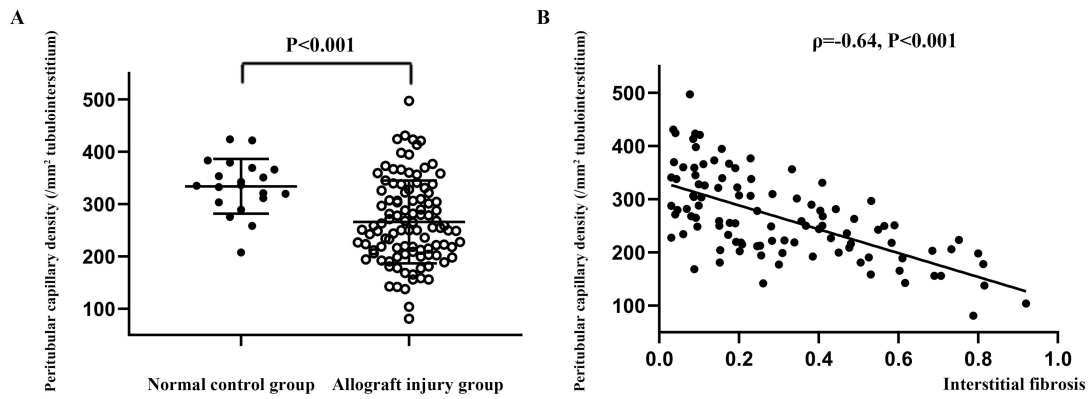
Abbreviations: DW-EPI, diffusion-weighted echo-planar imaging; FS, fat suppression; GRE, gradient-recalled echo; MFGR, multi-planar fast gradient echo; NEX, number of excitations; pCASL, pseudo-continuous arterial spin labeling; Propeller, periodically rotated overlapping parallel lines with enhanced construction; SSFSE, single-shot fast spin echo; T1-WI, T1 weighted imaging; T2-WI, T2 weighted imaging; TE, echo time; TR, repetition time.



Supplemental Figure 1: Study flowchart.



Supplemental Figure 2: Typical example of peritubular capillary density measurement using Aperio Microvessel algorithm. An annotation layer of tubulointerstitium was created (B) by manually drawing areas of interest that excluded glomeruli and interstitial large vessels on digitally scanned CD34-immunostained slides (A). By using the Aperio Microvessel algorithm, the peritubular capillary was highlighted and related parameters could be automatically calculated (C).



Supplemental Figure 3: Peritubular capillary density in the normal control group and allograft injury group. A: Peritubular capillary density was significantly reduced in the allograft injury group, in comparison to normal control group. B: Peritubular capillary density was negatively correlated with interstitial fibrosis ($\rho = -0.64, P < 0.001$).