

Figure S1 The maximum and the minimum value of velocity in PV and PA. Statistically significant differences are marked with * ($P < 0.05$). CT, conventional technique; max, maximum, min, minimum; PA, proximal artery; PV, proximal vein; MNTT, modified no-touch technique.

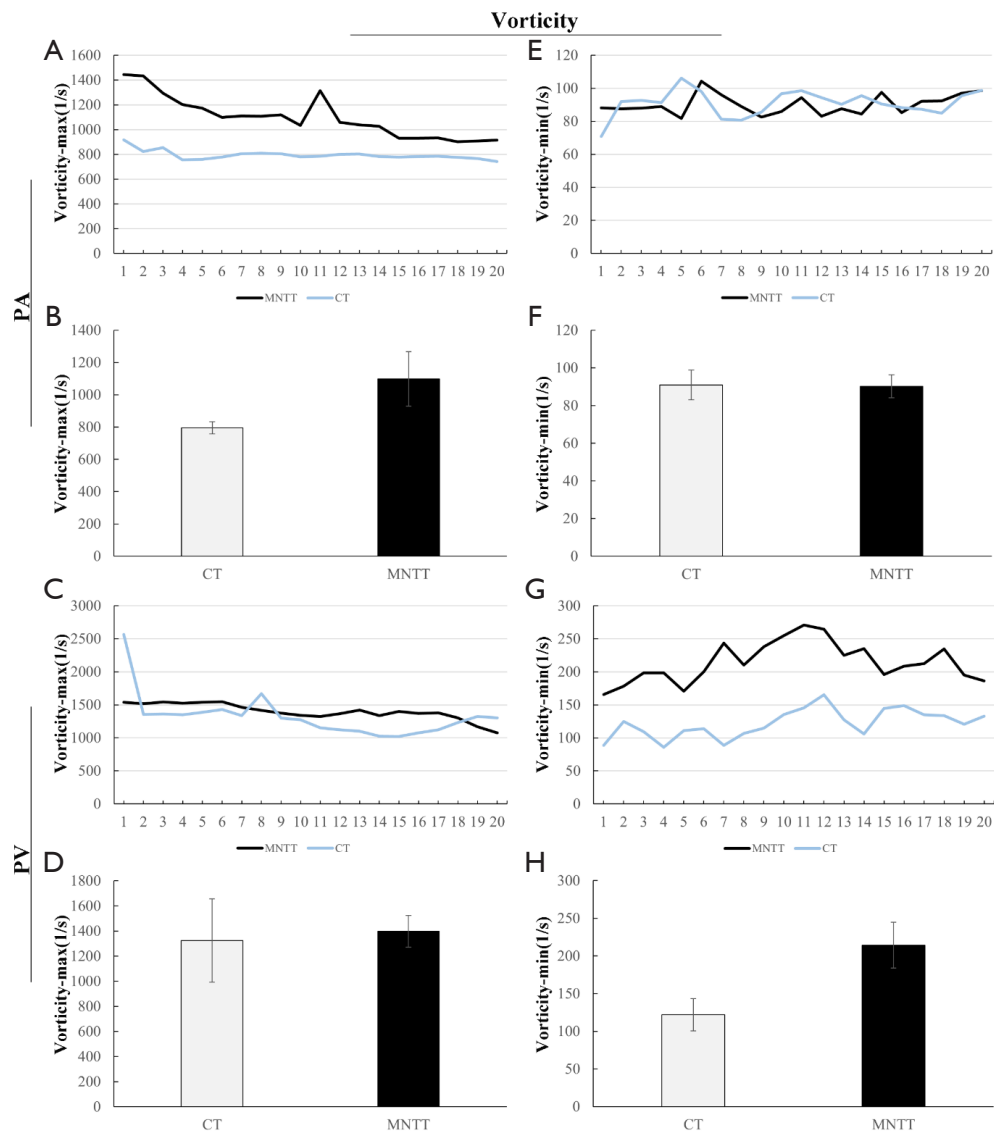


Figure S2 The maximum and the minimum value of vorticity in PV and PA. Statistically significant differences are marked with * ($P < 0.05$). CT, conventional technique; max, maximum, min, minimum; PA, proximal artery; PV, proximal vein; MNTT, modified no-touch technique.

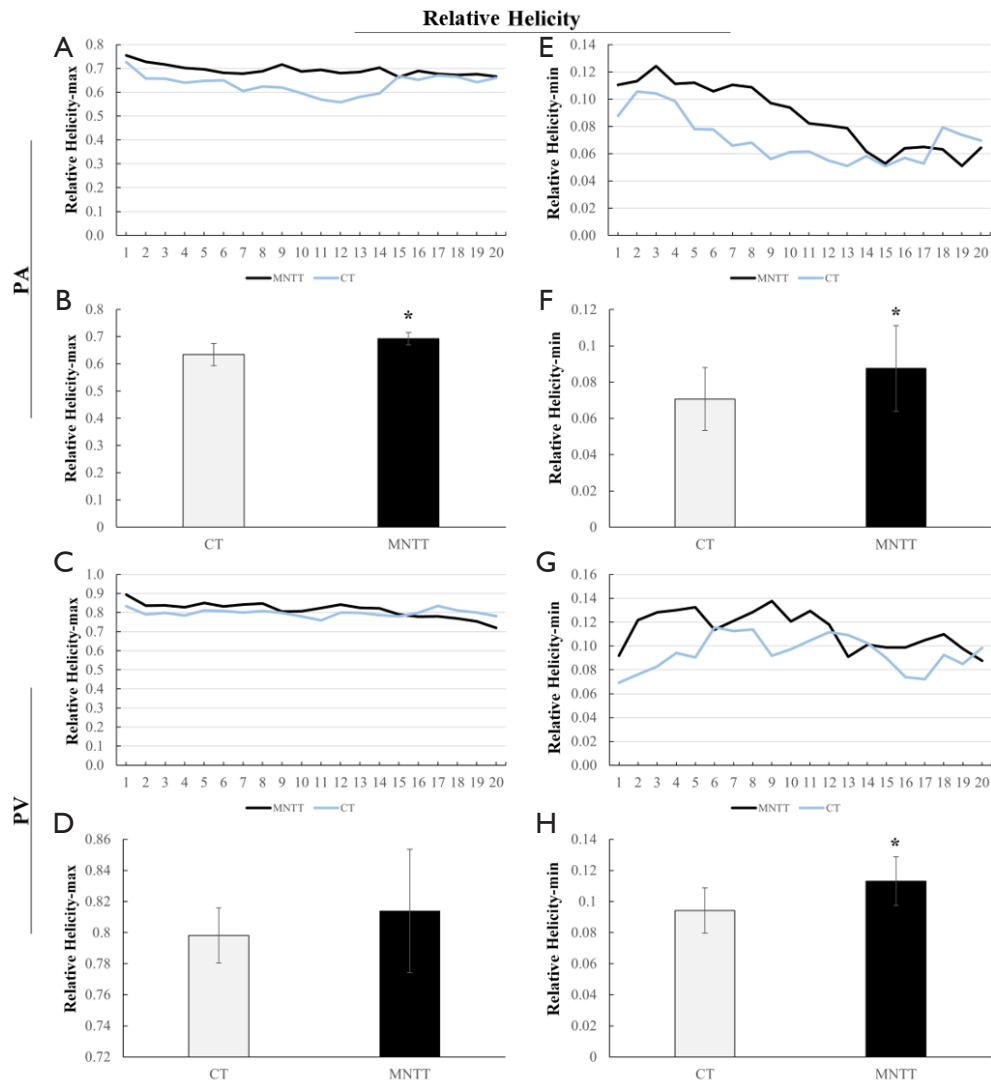


Figure S3 The maximum and the minimum value of relative helicity in PV and PA. Statistically significant differences are marked with * ($P < 0.05$). CT, conventional technique; PA, proximal artery; PV, proximal vein; MNTT, modified no-touch technique.

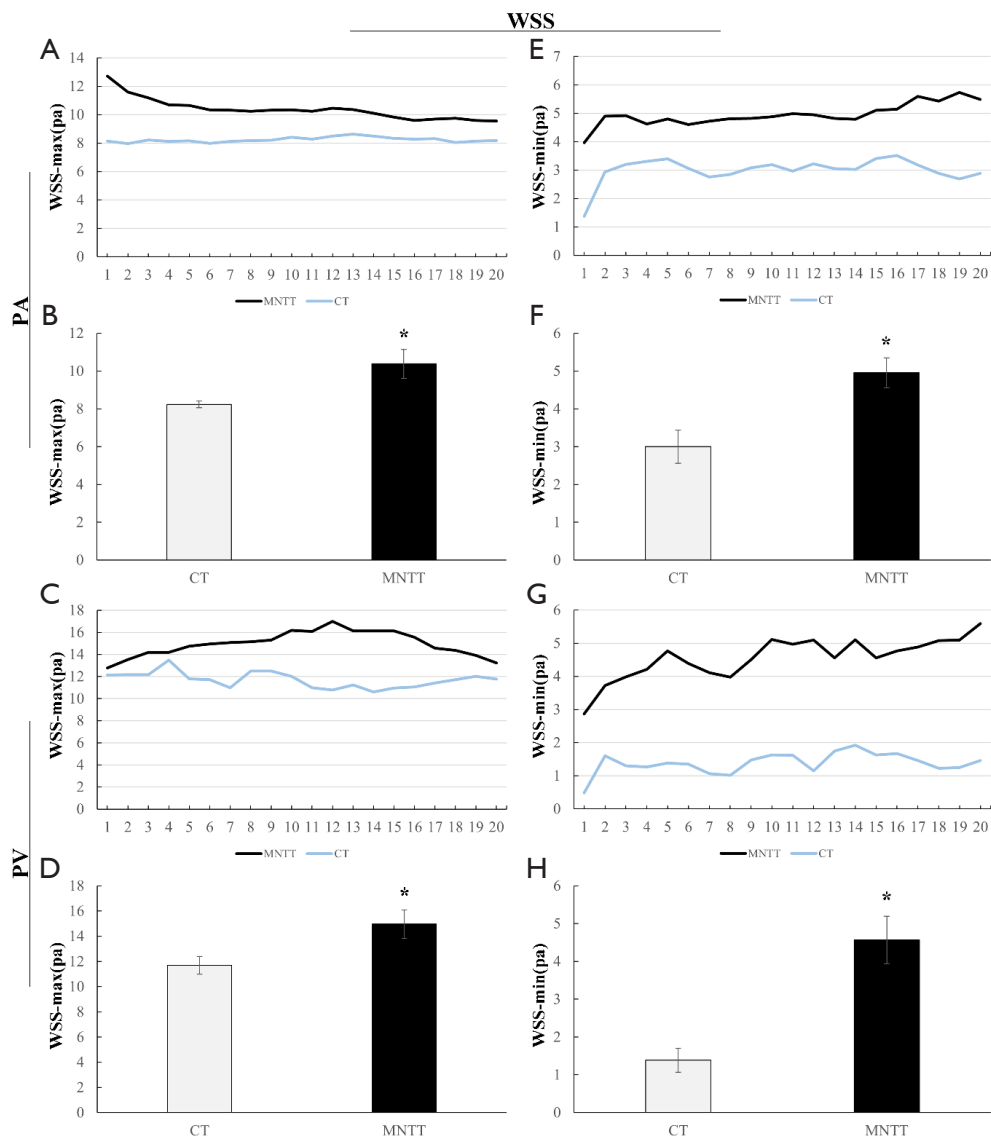


Figure S4 The maximum and the minimum value of WSS in PV and PA. Statistically significant differences are marked with * ($P < 0.05$). CT, conventional technique; max, maximum, min, minimum; MNTT, modified no-touch technique; PA, proximal artery; PV, proximal vein; WSS, wall shear stress.

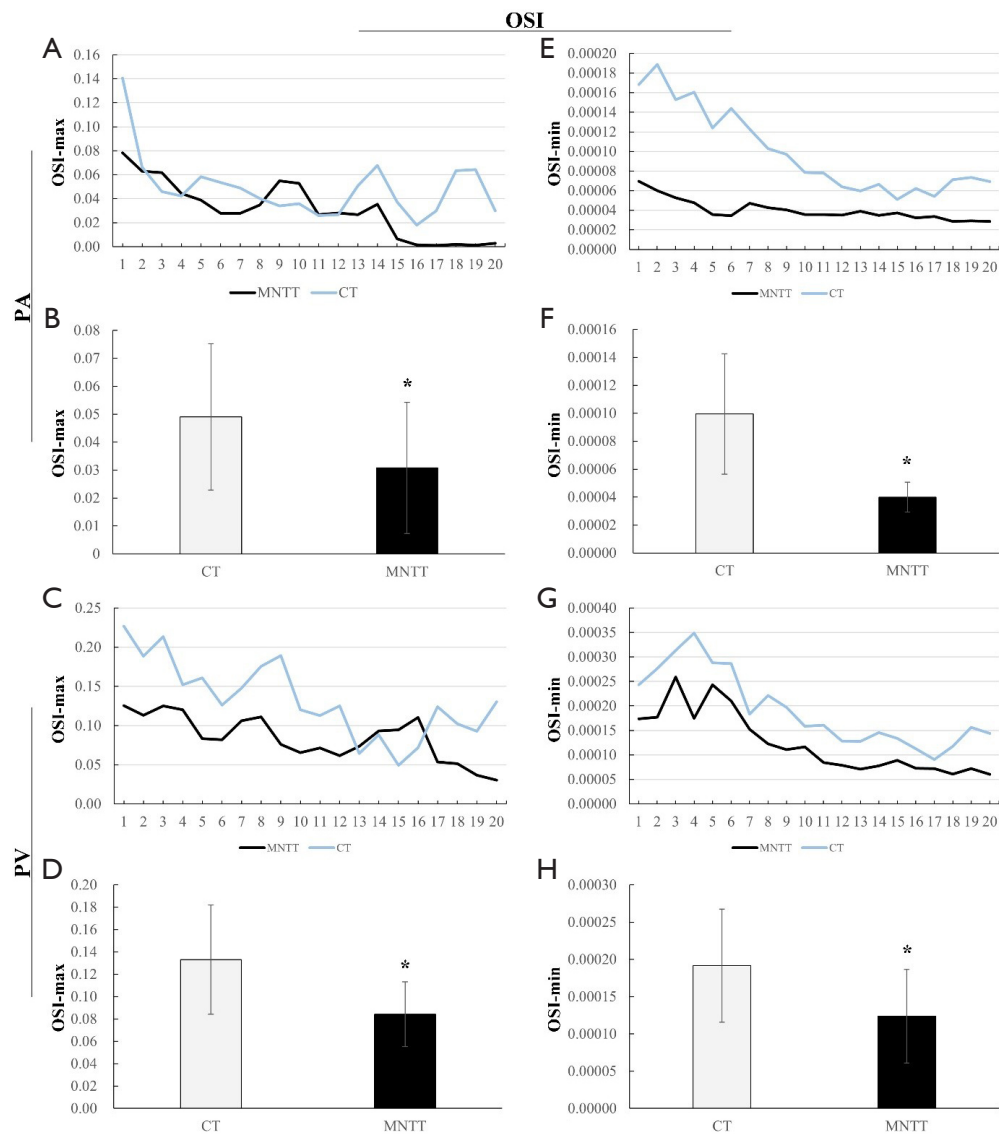


Figure S5 The maximum and the minimum value of OSI in PV and PA. Statistically significant differences are marked with * ($P < 0.05$). CT, conventional technique; max, maximum, min, minimum; MNTT, modified no-touch technique; PA, proximal artery; PV, proximal vein; OSI, Oscillatory Shear Index.