

Table S1 Comparisons of TABFV-R, TABFV-L, and semen analysis results between the pre- and post-MSV participants in the postoperative semen-improved and semen-nonimproved groups

Variable	Nonimproved group (n=65)			Improved group (n=31)		
	Pre-operation	Post-operation	P	Pre-operation	Post-operation	P
TABFV-R (cm ³ /min)	0.956±0.419	1.012±0.418	0.085	1.460 [1.230, 1.610]	1.770 [1.530, 2.050]	<0.001
TABFV-L (cm ³ /min)	0.800 [0.470, 0.960]	1.030 [0.770, 1.490]	<0.001	1.170 [0.810, 1.440]	2.350 [1.800, 2.670]	<0.001
Semen volume (mL)	3.400 [2.600, 4.000]	3.200 [2.300, 4.000]	0.938	3.200 [2.500, 4.000]	4.000 [3.000, 4.900]	0.187
Sperm concentration (10 ⁶ per mL)	23.130 [1.800, 43.400]	22.800 [2.500, 46.200]	0.945	25.450 [15.640, 44.100]	63.830 [38.490, 90.280]	<0.001
Total sperm number (10 ⁶ per ejaculate)	67.750 [6.600, 164.980]	73.500 [12.990, 168.640]	0.799	78.450 [47.150, 169.780]	239.330 [144.240, 362.700]	<0.001
Total motility (PR + NP, %)	16.590 [5.450, 27.800]	19.400 [4.220, 32.410]	0.099	21.650 [14.870, 36.870]	48.000 [35.220, 57.620]	<0.001
Progressive motility (PR, %)	11.43 [4.000, 22.930]	15.960 [3.380, 27.150]	0.065	17 [10.740, 26.540]	37.440 [26.190, 45.000]	<0.001
Sperm deformity rate (%)	3.00 [2.00, 4.00]	3.00 [1.00, 4.00]	0.128	3.00 [2.00, 4.00]	4.00 [3.00, 6.00]	0.002

Values are presented as mean ± SD and median (25th, 75th percentile). MSV, microscopic subinguinal varicocelelectomy; TABFV-R, testicular arterial blood flow volume of the right testis; TABFV-L, testicular arterial blood flow volume of the left testis; PR, progressive motility; NP, non-progressive motility.