

Supplementary Tables:

Table S1: Change in morphologic defects of spermatozoa (%) from baseline (T0 for initial raw semen evaluation) over time by centrifugation treatment groups. Treatment groups labelled as A: 400 g 5 min, B: 720 g 5 min, C: 900 g 5 min, D: 400 g 10 min, E: 720 g 10 min, F: 900 g 10 min. Time points T1: post-centrifugation, T2: 24 h of cooling, T3: 48 h of cooling. Different superscript letters (a, b, c) denote statistically significant ($p < 0.05$) differences between time points for a given treatment group per sperm parameter. Black triangles (▲) or asterisks (*) denote statistically significant ($p < 0.05$) difference between treatment groups within a given time point. Absence of markings within a row or column means no significant difference.

Treatment groups	Percentage change from baseline for acrosome abnormalities (median \pm SEM)			Percentage change from baseline for head abnormalities (median \pm SEM)			Percentage change from baseline for midpiece abnormalities (median \pm SEM)			Percentage change from baseline for tail abnormalities (median \pm SEM)		
	T1	T2	T3	T1	T2	T3	T1	T2	T3	T1	T2	T3
A	2.5 \pm 1.31 ^a	9.50 \pm 2.12 ^b	19.0 \pm 2.27 ^c	1.75 \pm 2.19	6.0 \pm 2.51	9.50 \pm 2.21	1.25 \pm 2.67 ^a	1.75 \pm 2.62 ^{a,b}	-3.25 \pm 1.73 ^b	-2.25 \pm 1.38	-1.0 \pm 1.14 [▲]	-2.75 \pm 1.73
B	2.25 \pm 1.36 ^a	14.0 \pm 1.75 ^b	19.25 \pm 2.36 ^c	6.75 \pm 2.30 ^a	9.25 \pm 2.28 ^{a,b}	11.75 \pm 1.66 ^b	-2.50 \pm 2.51	-1.75 \pm 2.79	-3.25 \pm 1.62	-2.75 \pm 1.13	0 \pm 1.68	-1.25 \pm 1.51
C	3.75 \pm 1.42 ^a	14.0 \pm 1.80 ^b	17.75 \pm 2.51 ^b	4.75 \pm 2.18	9.25 \pm 2.36	6.25 \pm 2.32	0.25 \pm 0.96 ^{a,b}	-0.75 \pm 2.53 ^a	-4.50 \pm 1.56 ^b	-1.50 \pm 1.53	-4.0 \pm 0.62 ^{▲,*}	-1.25 \pm 1.78
D	4.25 \pm 1.34 ^a	14.75 \pm 2.50 ^b	20.50 \pm 2.27 ^b	4.0 \pm 1.60 ^a	8.50 \pm 1.50 ^{a,b}	8.0 \pm 2.12 ^b	-3.0 \pm 2.43	-4.50 \pm 2.44	-2.75 \pm 1.74 [▲]	1.0 \pm 1.29	0.75 \pm 1.55	-2.0 \pm 1.49
E	2.50 \pm 1.54 ^a	16.25 \pm 2.27 ^b	19.75 \pm 2.70 ^b	4.50 \pm 1.68	7.75 \pm 1.68	10.75 \pm 2.11	-3.75 \pm 1.98	-4.0 \pm 2.88	-3.50 \pm 2.15	3.25 \pm 0.95	-1.25 \pm 1.02 [*]	-2.50 \pm 1.68
F	1.50 \pm 1.25 ^a	15.0 \pm 2.12 ^b	20.75 \pm 2.03 ^b	5.25 \pm 2.07	7.25 \pm 3.10	8.0 \pm 2.68	-3.0 \pm 2.52 ^{a,b}	-1.25 \pm 2.45 ^a	-6.0 \pm 1.38 ^{b,▲}	-0.50 \pm 1.48	-3.0 \pm 1.34	-2.0 \pm 1.90