Therapeutic Ultrasound Versus Levofloxacin in Lipopolysaccharide-Induced Orchitis: Comparative Effects on Testicular Inflammation and Tissue Recovery in Rats

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Supplementary Tables and Figures



Supplementary figure 1: Underwater Therapeutic Ultrasound Application on the studied rat

Rats were gently placed in a shallow water bath with the scrotal region exposed. A therapeutic ultrasound probe was held approximately 1 cm above the testicular area and moved in slow, circular motions without direct contact. Each session lasted 8 minutes and was administered 2–3 times per week over a 4-week period, for a total of 10 sessions.



Supplementary figure 2: Ultrasound Imaging of Testicular Region on the studied rats.

A high-frequency linear transducer was gently applied to the scrotal area using coupling gel to visualize the testicular region during the experimental procedure.

Supplementary table 1: CRP Tukey's multiple comparisons test

Tukey's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary	Adjusted P Value	
Control vs. Orchitis	-246.4	-461.4 to -31.52	Yes	*	0.0194	A-B
Control vs. Lev.	-95.24	-298.5 to 108.0	No	ns	0.5914	A-C
Control vs. US	10.89	-184.2 to 205.9	No	ns	0.9988	A-D
Orchitis vs. Lev.	151.2	-58.61 to 361.0	No	ns	0.2289	B-C
Orchitis vs. US	257.3	55.45 to 459.2	Yes	**	0.008	B-D
Lev. vs. US	106.1	-83.25 to 295.5	No	ns	0.4417	C-D

Supplementary table 2: IL-1β Tukey's multiple comparisons test

Tukey's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary	Adjusted P Value	
Control vs. Orchitis	-6.346	-9.030 to -3.662	Yes	****	<0.0001	A-B
Control vs. Lev.	-1.382	-4.066 to 1.302	No	ns	0.5155	A-C
Control vs. US.	-1.2	-3.884 to 1.484	No	ns	0.6281	A-D
Orchitis vs. Lev.	4.964	2.280 to 7.648	Yes	****	<0.0001	B-C
Orchitis vs. US.	5.146	2.462 to 7.830	Yes	****	<0.0001	B-D
Lev. vs. US.	0.182	-2.502 to 2.866	No	ns	0.9978	C-D

Supplementary table 3: IL-6 Tukey's multiple comparisons test

Tukey's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary	Adjusted P Value	
Control vs. Orchitis	-6.778	-9.939 to -3.617	Yes	****	<0.0001	A-B
Control vs. Lev.	-4.556	-7.716 to -1.395	Yes	**	0.0025	A-C
Control vs. US.	-2.222	-5.383 to 0.9387	No	ns	0.2463	A-D
Orchitis vs. Lev.	2.222	-0.9387 to 5.383	No	ns	0.2463	B-C
Orchitis vs. US.	4.556	1.395 to 7.716	Yes	**	0.0025	B-D
Lev. vs. US.	2.333	-0.8276 to 5.494	No	ns	0.2092	C-D

Supplementary table 4: IL-10 Tukey's multiple comparisons test

Tukey's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary	Adjusted P Value	
Control vs. Orchitis	14	6.108 to 21.89	Yes	***	0.0002	A-B
Control vs. Lev.	10.78	2.886 to 18.67	Yes	**	0.0043	A-C
Control vs. US.	2.444	-5.447 to 10.34	No	ns	0.8354	A-D
Orchitis vs. Lev.	-3.222	-11.11 to 4.670	No	ns	0.6884	B-C
Orchitis vs. US.	-11.56	-19.45 to -3.664	Yes	**	0.0021	B-D
Lev. vs. US.	-8.333	-16.23 to -0.4414	Yes	*	0.0353	C-D

Supplementary table 5: TNF-α Tukey's multiple comparisons test

Tukey's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary	Adjusted P Value	
Control vs. Orchitis	-5	-8.649 to -1.351	Yes	**	0.0073	A-B
Control vs. Lev.	-3.75	-7.399 to -0.1012	Yes	*	0.0434	A-C
Control vs. US.	-1.5	-5.149 to 2.149	No	ns	0.6264	A-D
Orchitis vs. Lev.	1.25	-2.399 to 4.899	No	ns	0.7429	B-C
Orchitis vs. US.	3.5	-0.1488 to 7.149	No	ns	0.0616	B-D
Lev. vs. US.	2.25	-1.399 to 5.899	No	ns	0.3067	C-D

Supplementary table 6: INF-γ Tukey's multiple comparisons test

Tukey's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary	Adjusted P Value	
Control vs. Orchitis	-8.25	-13.96 to -2.541	Yes	**	0.005	A-B
Control vs. Lev.	-3.25	-8.959 to 2.459	No	ns	0.37	A-C
Control vs. US.	-1.25	-6.959 to 4.459	No	ns	0.9135	A-D
Orchitis vs. Lev.	5	-0.7092 to 10.71	No	ns	0.0936	B-C
Orchitis vs. US.	7	1.291 to 12.71	Yes	*	0.0155	B-D
Lev. vs. US.	2	-3.709 to 7.709	No	ns	0.7302	C-D