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LAMPIRAN

Lampiran 1. Data dan hasil uji analisis statistik non-parametrik kelangsungan hidup embrio *Oryzias celebensis*

Embrio	Hidup	Mati
A1	1	
A2		1
A3		1
A4		1
A5		1
A6		1
A7	1	
A8		1
A9		1
A10		1

Embrio	Hidup	Mati
B1	1	
B2		1
B3		1
B4		1
B5		1
B6	1	
B7	1	
B8		
B9		1
B10	1	

Embrio	Hidup	Mati
C1		1
C2		1
C3	1	
C4		1
C5		1
C6	1	
C7	1	
C8		1
C9	1	
C10		1

Embrio	Hidup	Mati
D1	1	
D2	1	
D3	1	
D4	1	
D5	1	
D6	1	
D7	1	
D8	1	
D9	1	
D10	1	

Perlakuan	Kelangsungan hidup(%)
A	20
B	40
C	40
D	100

Keterangan

A : 15 Menit

B : 10 Menit

C : 5 Menit

D : Kontrol

Table Analyzed	Kelangsungan Hidup
Kruskal-Wallis test	
P value	0.0029
Exact or approximate P value?	Approximate
P value summary	**
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	14.04
Data summary	
Number of treatments (columns)	4
Number of values (total)	40

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary		
Kontrol vs. 5 Menit	12.00	Yes	*		A-B
Kontrol vs. 10 Menit	12.00	Yes	*		A-C
Kontrol vs. 15 Menit	16.00	Yes	**		A-D
5 Menit vs. 10 Menit	0.000	No	ns		B-C
5 Menit vs. 15 Menit	4.000	No	ns		B-D
10 Menit vs. 15 Menit	4.000	No	ns		C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
Kontrol vs. 5 Menit	30.50	18.50	12.00	10	10
Kontrol vs. 10 Menit	30.50	18.50	12.00	10	10
Kontrol vs. 15 Menit	30.50	14.50	16.00	10	10
5 Menit vs. 10 Menit	18.50	18.50	0.000	10	10
5 Menit vs. 15 Menit	18.50	14.50	4.000	10	10
10 Menit vs. 15 Menit	18.50	14.50	4.000	10	10

Lampiran 2. Data dan hasil uji analisis statistik non-parametrik volume kuning telur embrio *Oryzias celebensis*

Fase	15 Menit	10 Menit	5 Menit	Kontrol
17	0,84	0,85	0,90	0,87
18	0,83	0,87	0,84	0,77
19	0,78	0,86	0,96	0,87
20	0,78	0,79	0,92	0,80
21	0,70	0,71	0,88	0,83
22	0,80	0,85	0,90	0,86
23	0,77	0,87	0,82	0,77
24	0,69	0,72	0,85	0,70
25	0,73	0,58	0,79	0,44
26	0,75	0,53	0,77	0,57
27	0,75	0,39	0,89	0,50
28	0,72	0,56	0,80	0,58
29	0,69	0,41	0,77	0,59
30	0,75	0,35	0,74	0,50
31	0,52	0,40	0,65	0,47
32	0,53	0,35	0,49	0,37
33	0,42	0,32	0,44	0,19
34	0,36	0,22	0,20	0,28
35	0,31	0,32	0,26	0,16
36	0,29	0,26	0,23	0,23
37	0,18	0,25	0,25	

Table Analyzed		Volume Kuning Telur
Kruskal-Wallis test		
P value		0.9577
Exact or approximate P value?		Approximate
P value summary		ns
Do the medians vary signif. (P < 0.05)?		No
Number of groups		4
Kruskal-Wallis statistic		0.3122
Data summary		
Number of treatments (columns)		4
Number of values (total)		83
Number of families	1	
Number of comparisons per family	6	
Alpha	0.05	

Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 Menit vs. 10 Menit	0.9762	No	ns	>0.9999	A-B
15 Menit vs. 5 Menit	0.4524	No	ns	>0.9999	A-C
15 Menit vs. Kontrol	3.836	No	ns	>0.9999	A-D
10 Menit vs. 5 Menit	-0.5238	No	ns	>0.9999	B-C
10 Menit vs. Kontrol	2.860	No	ns	>0.9999	B-D
5 Menit vs. Kontrol	3.383	No	ns	>0.9999	C-D

Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 Menit vs. 10 Menit	43.29	42.31	0.9762	21	21
15 Menit vs. 5 Menit	43.29	42.83	0.4524	21	21
15 Menit vs. Kontrol	43.29	39.45	3.836	21	20
10 Menit vs. 5 Menit	42.31	42.83	-0.5238	21	21
10 Menit vs. Kontrol	42.31	39.45	2.860	21	20
5 Menit vs. Kontrol	42.83	39.45	3.383	21	20

Lampiran 3. Data dan hasil uji analisis statistik non-parametrik laju penyerapan kuning telur embrio *Oryzias celebensis*

Embrio	Kontrol	5 Menit	10 Menit	15 Menit
EOC1	0,0038	0,0037	0,0034	0,0038
EOC2	0,0042	0,0040	0,0036	0,0005
EOC3	0,0038	0,0035	0,0032	0,0014
EOC4	0,0042	0,0034	0,0031	0,0006
EOC5	0,0040	0,0031	0,0037	0,0037
EOC6	0,0041	0,0036	0,0020	0,0010
EOC7	0,0039	0,0039	0,0038	0,0042
EOC8	0,0040	0,0042	0,0040	0,0040
EOC9	0,0046	0,0039	0,0039	0,0039
EOC10	0,0045	0,0035	0,0043	0,0005

Table Analyzed	Data 1
Kruskal-Wallis test	
P value	0.0093
Exact or approximate P value?	Approximate
P value summary	**
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	11.50
Data summary	
Number of treatments (columns)	4
Number of values (total)	40

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
Kontrol vs. 5 Menit	11.90	No	ns	0.1344	A-B
Kontrol vs. 10 Menit	13.10	No	ns	0.0717	A-C
Kontrol vs. 15 Menit	16.60	Yes	**	0.0087	A-D
5 Menit vs. 10 Menit	1.200	No	ns	>0.9999	B-C
5 Menit vs. 15 Menit	4.700	No	ns	>0.9999	B-D
10 Menit vs. 15 Menit	3.500	No	ns	>0.9999	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
Kontrol vs. 5 Menit	30.90	19.00	11.90	10	10
Kontrol vs. 10 Menit	30.90	17.80	13.10	10	10
Kontrol vs. 15 Menit	30.90	14.30	16.60	10	10
5 Menit vs. 10 Menit	19.00	17.80	1.200	10	10
5 Menit vs. 15 Menit	19.00	14.30	4.700	10	10
10 Menit vs. 15 Menit	17.80	14.30	3.500	10	10

Lampiran 4. Data dan hasil uji analisis statistik non-parametrik jumlah somit embrio *Oryzias celebensis*

No.	Embrio	Fase 19	Fase 20	Fase 21	No.	Embrio	Fase 19	Fase 20	Fase 21
1	A1	3	6	8	21	C1	4	6	8
2	A2	4	5	6	22	C2	5	7	8
3	A3	4	5	8	23	C3	4	5	8
4	A4	3	4	8	24	C4	4	6	8
5	A5	5	5	5	25	C5	4	6	8
6	A6	2	-	-	26	C6	4	6	7
7	A7	4	6	7	27	C7	3	5	7
8	A8	4	5	9	28	C8	4	6	9
9	A9	3	5	8	29	C9	3	7	9
10	A10	5	6	8	30	C10	3	5	7
11	B1	2	5	5	31	D1	4	6	9
12	B2	3	5	8	32	D2	3	6	8
13	B3	4	6	8	33	D3	4	6	8
14	B4	3	6	8	34	D4	4	5	9
15	B5	3	8	8	35	D5	5	7	8
16	B6	4	5	8	36	D6	4	7	8
17	B7	2	5	7	37	D7	3	6	8
18	B8	2	5	9	38	D8	4	5	8
19	B9	3	5	5	39	D9	2	7	9
20	B10	4	7	8	40	D10	4	5	8

Table Analyzed	Somit
Kruskal-Wallis test	
P value	0.8786
Exact or approximate P value?	Exact
P value summary	ns
Do the medians vary signif. (P < 0.05)?	No
Number of groups	4
Kruskal-Wallis statistic	0.8105
Data summary	
Number of treatments (columns)	4
Number of values (total)	12

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary		
15 Menit vs. 10 Menit	0.5000	No	ns		A-B
15 Menit vs. 5 Menit	-1.500	No	ns		A-C
15 Menit vs. Kontrol	-1.667	No	ns		A-D
10 Menit vs. 5 Menit	-2.000	No	ns		B-C
10 Menit vs. Kontrol	-2.167	No	ns		B-D
5 Menit vs. Kontrol	-0.1667	No	ns		C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 Menit vs. 10 Menit	5.833	5.333	0.5000	3	3
15 Menit vs. 5 Menit	5.833	7.333	-1.500	3	3
15 Menit vs. Kontrol	5.833	7.500	-1.667	3	3
10 Menit vs. 5 Menit	5.333	7.333	-2.000	3	3
10 Menit vs. Kontrol	5.333	7.500	-2.167	3	3
5 Menit vs. Kontrol	7.333	7.500	-0.1667	3	3

Lampiran 5. Hasil uji analisis statistik non-parametrik detak jantung embrio *Oryzias celebensis*

1. Detak jantung stadia 24

Table Analyzed	FASE 24
Kruskal-Wallis test	
P value	0.0008
Exact or approximate P value?	Approximate
P value summary	***
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	16.79
Data summary	
Number of treatments (columns)	4
Number of values (total)	36

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 MNT vs. 10 MNT	-6.285	No	ns	>0.9999	A-B
15 MNT vs. 5 MNT	10.83	No	ns	0.1725	A-C
15 MNT vs. KONTROL	10.68	No	ns	0.1620	A-D
10 MNT vs. 5 MNT	17.12	Yes	**	0.0048	B-C
10 MNT vs. KONTROL	16.96	Yes	**	0.0040	B-D
5 MNT vs. KONTROL	-0.1556	No	ns	>0.9999	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	22.78	29.06	-6.285	9	8
15 MNT vs. 5 MNT	22.78	11.94	10.83	9	9
15 MNT vs. KONTROL	22.78	12.10	10.68	9	10
10 MNT vs. 5 MNT	29.06	11.94	17.12	8	9
10 MNT vs. KONTROL	29.06	12.10	16.96	8	10
5 MNT vs. KONTROL	11.94	12.10	-0.1556	9	10

2. Detak jantung stadia 25

Table Analyzed	FASE 25
Kruskal-Wallis test	
P value	<0.0001
Exact or approximate P value?	Approximate
P value summary	****
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	27.06
Data summary	
Number of treatments (columns)	4
Number of values (total)	37

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 MNT vs. 10 MNT	5.278	No	ns	>0.9999	A-B
15 MNT vs. 5 MNT	21.78	Yes	***	0.0001	A-C
15 MNT vs. KONTROL	19.64	Yes	***	0.0004	A-D
10 MNT vs. 5 MNT	16.50	Yes	**	0.0070	B-C
10 MNT vs. KONTROL	14.36	Yes	*	0.0225	B-D
5 MNT vs. KONTROL	-2.139	No	ns	>0.9999	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	30.89	25.61	5.278	9	9
15 MNT vs. 5 MNT	30.89	9.111	21.78	9	9
15 MNT vs. KONTROL	30.89	11.25	19.64	9	10
10 MNT vs. 5 MNT	25.61	9.111	16.50	9	9
10 MNT vs. KONTROL	25.61	11.25	14.36	9	10
5 MNT vs. KONTROL	9.111	11.25	-2.139	9	10

3. Detak jantung stadia 26

Table Analyzed	FASE 26
Kruskal-Wallis test	
P value	0.0276
Exact or approximate P value?	Approximate
P value summary	*
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	9.128
Data summary	
Number of treatments (columns)	4
Number of values (total)	37

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 MNT vs. 10 MNT	14.22	Yes	*	0.0314	A-B
15 MNT vs. 5 MNT	11.89	No	ns	0.1174	A-C
15 MNT vs. KONTROL	7.128	No	ns	0.9061	A-D
10 MNT vs. 5 MNT	-2.333	No	ns	>0.9999	B-C
10 MNT vs. KONTROL	-7.094	No	ns	0.9176	B-D
5 MNT vs. KONTROL	-4.761	No	ns	>0.9999	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	27.28	13.06	14.22	9	9
15 MNT vs. 5 MNT	27.28	15.39	11.89	9	9
15 MNT vs. KONTROL	27.28	20.15	7.128	9	10
10 MNT vs. 5 MNT	13.06	15.39	-2.333	9	9
10 MNT vs. KONTROL	13.06	20.15	-7.094	9	10
5 MNT vs. KONTROL	15.39	20.15	-4.761	9	10

4. Detak jantung stadia 27

Table Analyzed	FASE 27
Kruskal-Wallis test	
P value	<0.0001
Exact or approximate P value?	Approximate
P value summary	****
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	21.44
Data summary	
Number of treatments (columns)	4
Number of values (total)	36

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 MNT vs. 10 MNT	-14.12	Yes	*	0.0347	A-B
15 MNT vs. 5 MNT	8.160	No	ns	0.6641	A-C
15 MNT vs. KONTROL	1.538	No	ns	>0.9999	A-D
10 MNT vs. 5 MNT	22.28	Yes	****	<0.0001	B-C
10 MNT vs. KONTROL	15.66	Yes	**	0.0073	B-D
5 MNT vs. KONTROL	-6.622	No	ns	>0.9999	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	17.44	31.56	-14.12	8	9
15 MNT vs. 5 MNT	17.44	9.278	8.160	8	9
15 MNT vs. KONTROL	17.44	15.90	1.538	8	10
10 MNT vs. 5 MNT	31.56	9.278	22.28	9	9
10 MNT vs. KONTROL	31.56	15.90	15.66	9	10
5 MNT vs. KONTROL	9.278	15.90	-6.622	9	10

5. Detak jantung stadia 28

Table Analyzed	FASE 28
Kruskal-Wallis test	
P value	0.0005
Exact or approximate P value?	Approximate
P value summary	***
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	17.73
Data summary	
Number of treatments (columns)	4
Number of values (total)	37

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 MNT vs. 10 MNT	-4.299	No	ns	>0.9999	A-B
15 MNT vs. 5 MNT	-10.09	No	ns	0.2961	A-C
15 MNT vs. KONTROL	-20.04	Yes	***	0.0006	A-D
10 MNT vs. 5 MNT	-5.789	No	ns	>0.9999	B-C
10 MNT vs. KONTROL	-15.74	Yes	**	0.0093	B-D
5 MNT vs. KONTROL	-9.950	No	ns	0.2385	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	9.813	14.11	-4.299	8	9
15 MNT vs. 5 MNT	9.813	19.90	-10.09	8	10
15 MNT vs. KONTROL	9.813	29.85	-20.04	8	10
10 MNT vs. 5 MNT	14.11	19.90	-5.789	9	10
10 MNT vs. KONTROL	14.11	29.85	-15.74	9	10
5 MNT vs. KONTROL	19.90	29.85	-9.950	10	10

6. Detak jantung stadia 29

Table Analyzed	FASE 29
Kruskal-Wallis test	
P value	0.0002
Exact or approximate P value?	Approximate
P value summary	***
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	20.00
Data summary	
Number of treatments (columns)	4
Number of values (total)	37

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 MNT vs. 10 MNT	-12.04	No	ns	0.1318	A-B
15 MNT vs. 5 MNT	-10.33	No	ns	0.2652	A-C
15 MNT vs. KONTROL	-22.78	Yes	****	<0.0001	A-D
10 MNT vs. 5 MNT	1.717	No	ns	>0.9999	B-C
10 MNT vs. KONTROL	-10.73	No	ns	0.1849	B-D
5 MNT vs. KONTROL	-12.45	No	ns	0.0604	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	7.125	19.17	-12.04	8	9
15 MNT vs. 5 MNT	7.125	17.45	-10.33	8	10
15 MNT vs. KONTROL	7.125	29.90	-22.78	8	10
10 MNT vs. 5 MNT	19.17	17.45	1.717	9	10
10 MNT vs. KONTROL	19.17	29.90	-10.73	9	10
5 MNT vs. KONTROL	17.45	29.90	-12.45	10	10

7. Detak jantung stadia 30

Table Analyzed	FASE 30
Kruskal-Wallis test	
P value	0.0258
Exact or approximate P value?	Approximate
P value summary	*
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	9.278
Data summary	
Number of treatments (columns)	4
Number of values (total)	36

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 MNT vs. 10 MNT	2.000	No	ns	>0.9999	A-B
15 MNT vs. 5 MNT	1.550	No	ns	>0.9999	A-C
15 MNT vs. KONTROL	-10.55	No	ns	0.2525	A-D
10 MNT vs. 5 MNT	-0.4500	No	ns	>0.9999	B-C
10 MNT vs. KONTROL	-12.55	No	ns	0.0570	B-D
5 MNT vs. KONTROL	-12.10	No	ns	0.0612	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	16.50	14.50	2.000	7	9
15 MNT vs. 5 MNT	16.50	14.95	1.550	7	10
15 MNT vs. KONTROL	16.50	27.05	-10.55	7	10
10 MNT vs. 5 MNT	14.50	14.95	-0.4500	9	10
10 MNT vs. KONTROL	14.50	27.05	-12.55	9	10
5 MNT vs. KONTROL	14.95	27.05	-12.10	10	10

8. Detak jantung stadia 31

Table Analyzed	FASE 31
Kruskal-Wallis test	
P value	<0.0001
Exact or approximate P value?	Approximate
P value summary	****
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	21.76
Data summary	
Number of treatments (columns)	4
Number of values (total)	33

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary		
15 MNT vs. 10 MNT	0.5250	No	ns		A-B
15 MNT vs. 5 MNT	-6.900	No	ns		A-C
15 MNT vs. KONTROL	-18.60	Yes	**		A-D
10 MNT vs. 5 MNT	-7.425	No	ns		B-C
10 MNT vs. KONTROL	-19.13	Yes	***		B-D
5 MNT vs. KONTROL	-11.70	Yes	*		C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	9.400	8.875	0.5250	5	8
15 MNT vs. 5 MNT	9.400	16.30	-6.900	5	10
15 MNT vs. KONTROL	9.400	28.00	-18.60	5	10
10 MNT vs. 5 MNT	8.875	16.30	-7.425	8	10
10 MNT vs. KONTROL	8.875	28.00	-19.13	8	10
5 MNT vs. KONTROL	16.30	28.00	-11.70	10	10

9. Detak jantung stadia 32

Table Analyzed	FASE 32
Kruskal-Wallis test	
P value	<0.0001
Exact or approximate P value?	Approximate
P value summary	****
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	21.86
Data summary	
Number of treatments (columns)	4
Number of values (total)	33

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 MNT vs. 10 MNT	-1.213	No	ns	>0.9999	A-B
15 MNT vs. 5 MNT	-15.30	Yes	*	0.0231	A-C
15 MNT vs. KONTROL	-18.05	Yes	**	0.0039	A-D
10 MNT vs. 5 MNT	-14.09	Yes	*	0.0127	B-C
10 MNT vs. KONTROL	-16.84	Yes	**	0.0014	B-D
5 MNT vs. KONTROL	-2.750	No	ns	>0.9999	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	6.600	7.813	-1.213	5	8
15 MNT vs. 5 MNT	6.600	21.90	-15.30	5	10
15 MNT vs. KONTROL	6.600	24.65	-18.05	5	10
10 MNT vs. 5 MNT	7.813	21.90	-14.09	8	10
10 MNT vs. KONTROL	7.813	24.65	-16.84	8	10
5 MNT vs. KONTROL	21.90	24.65	-2.750	10	10

10. Detak jantung stadia 33

Table Analyzed	FASE 33
Kruskal-Wallis test	
P value	0.0024
Exact or approximate P value?	Approximate
P value summary	**
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	14.40
Data summary	
Number of treatments (columns)	4
Number of values (total)	33

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 MNT vs. 10 MNT	9.950	No	ns	0.4256	A-B
15 MNT vs. 5 MNT	-4.500	No	ns	>0.9999	A-C
15 MNT vs. KONTROL	-6.100	No	ns	>0.9999	A-D
10 MNT vs. 5 MNT	-14.45	Yes	**	0.0097	B-C
10 MNT vs. KONTROL	-16.05	Yes	**	0.0028	B-D
5 MNT vs. KONTROL	-1.600	No	ns	>0.9999	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	16.20	6.250	9.950	5	8
15 MNT vs. 5 MNT	16.20	20.70	-4.500	5	10
15 MNT vs. KONTROL	16.20	22.30	-6.100	5	10
10 MNT vs. 5 MNT	6.250	20.70	-14.45	8	10
10 MNT vs. KONTROL	6.250	22.30	-16.05	8	10
5 MNT vs. KONTROL	20.70	22.30	-1.600	10	10

11. Detak jantung stadia 34

Table Analyzed	FASE 34
Kruskal-Wallis test	
P value	0.0006
Exact or approximate P value?	Approximate
P value summary	***
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	17.32
Data summary	
Number of treatments (columns)	4
Number of values (total)	33

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 MNT vs. 10 MNT	13.23	No	ns	0.0983	A-B
15 MNT vs. 5 MNT	-5.500	No	ns	>0.9999	A-C
15 MNT vs. KONTROL	0.2000	No	ns	>0.9999	A-D
10 MNT vs. 5 MNT	-18.73	Yes	***	0.0003	B-C
10 MNT vs. KONTROL	-13.03	Yes	*	0.0270	B-D
5 MNT vs. KONTROL	5.700	No	ns	>0.9999	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	18.60	5.375	13.23	5	8
15 MNT vs. 5 MNT	18.60	24.10	-5.500	5	10
15 MNT vs. KONTROL	18.60	18.40	0.2000	5	10
10 MNT vs. 5 MNT	5.375	24.10	-18.73	8	10
10 MNT vs. KONTROL	5.375	18.40	-13.03	8	10
5 MNT vs. KONTROL	24.10	18.40	5.700	10	10

12. Detak jantung stadia 35

Table Analyzed	FASE 35
Kruskal-Wallis test	
P value	<0.0001
Exact or approximate P value?	Approximate
P value summary	****
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	22.79
Data summary	
Number of treatments (columns)	4
Number of values (total)	33

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 MNT vs. 10 MNT	-1.650	No	ns	>0.9999	A-B
15 MNT vs. 5 MNT	-13.10	No	ns	0.0801	A-C
15 MNT vs. KONTROL	-19.90	Yes	**	0.0010	A-D
10 MNT vs. 5 MNT	-11.45	No	ns	0.0751	B-C
10 MNT vs. KONTROL	-18.25	Yes	***	0.0004	B-D
5 MNT vs. KONTROL	-6.800	No	ns	0.6941	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	6.600	8.250	-1.650	5	8
15 MNT vs. 5 MNT	6.600	19.70	-13.10	5	10
15 MNT vs. KONTROL	6.600	26.50	-19.90	5	10
10 MNT vs. 5 MNT	8.250	19.70	-11.45	8	10
10 MNT vs. KONTROL	8.250	26.50	-18.25	8	10
5 MNT vs. KONTROL	19.70	26.50	-6.800	10	10

13. Detak jantung stadia 36

Table Analyzed	FASE 36
Kruskal-Wallis test	
P value	<0.0001
Exact or approximate P value?	Approximate
P value summary	****
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	22.87
Data summary	
Number of treatments (columns)	4
Number of values (total)	31

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 MNT vs. 10 MNT	-3.350	No	ns	>0.9999	A-B
15 MNT vs. 5 MNT	-13.27	No	ns	0.0530	A-C
15 MNT vs. KONTROL	-20.27	Yes	***	0.0004	A-D
10 MNT vs. 5 MNT	-9.917	No	ns	0.1481	B-C
10 MNT vs. KONTROL	-16.92	Yes	***	0.0008	B-D
5 MNT vs. KONTROL	-7.000	No	ns	0.6129	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	5.400	8.750	-3.350	5	8
15 MNT vs. 5 MNT	5.400	18.67	-13.27	5	9
15 MNT vs. KONTROL	5.400	25.67	-20.27	5	9
10 MNT vs. 5 MNT	8.750	18.67	-9.917	8	9
10 MNT vs. KONTROL	8.750	25.67	-16.92	8	9
5 MNT vs. KONTROL	18.67	25.67	-7.000	9	9

14. Detak jantung stadia 37

Table Analyzed	FASE 37
Kruskal-Wallis test	
P value	0.0014
Exact or approximate P value?	Approximate
P value summary	**
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	4
Kruskal-Wallis statistic	15.62
Data summary	
Number of treatments (columns)	4
Number of values (total)	22

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 MNT vs. 10 MNT	5.675	No	ns	0.7510	A-B
15 MNT vs. 5 MNT	-6.629	No	ns	0.4871	A-C
15 MNT vs. KONTROL	-7.200	No	ns	>0.9999	A-D
10 MNT vs. 5 MNT	-12.30	Yes	**	0.0015	B-C
10 MNT vs. KONTROL	-12.88	No	ns	0.0727	B-D
5 MNT vs. KONTROL	-0.5714	No	ns	>0.9999	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 MNT vs. 10 MNT	10.80	5.125	5.675	5	8
15 MNT vs. 5 MNT	10.80	17.43	-6.629	5	7
15 MNT vs. KONTROL	10.80	18.00	-7.200	5	2
10 MNT vs. 5 MNT	5.125	17.43	-12.30	8	7
10 MNT vs. KONTROL	5.125	18.00	-12.88	8	2
5 MNT vs. KONTROL	17.43	18.00	-0.5714	7	2

Lampiran 6. Data dan hasil uji analisis statistik non-parametrik waktu penetasan embrio *Oryzias celebensis*

No.	Waktu Penetasan (hari)	Embrio (15 Menit)	Tanggal
1 2	13	A1 A7	07-Des-2022

No.	Waktu Penetasan (hari)	Embrio (10 Menit)	Tanggal
1 2	12	B6 B10	13-Des-2022
3 4	17	B1 B7	18-Des-2022

No.	Waktu Penetasan (hari)	Embrio (5 Menit)	Tanggal
1	10	C9	28-Des-2022
2 3	11	C3 C7	29-Des-2022
4	12	C6	30-Des-2022

No.	Waktu Penetasan (hari)	Embrio (Kontrol)	Tanggal
1	10	D5	28-Des-2022
2 3 4 5 6 7 8 9	11	D1 D2 D3 D4 D6 D7 D8 D9	29-Des-2022
10	12	D10	30-Des-2022

Number of values	10	2	4	4
Minimum	10.00	13.00	12.00	10.00
25% Percentile	11.00	13.00	12.00	10.25
Median	11.00	13.00	14.50	11.00
75% Percentile	11.00	13.00	17.00	11.75
Maximum	12.00	13.00	17.00	12.00
Mean	11.00	13.00	14.50	11.00
Std. Deviation	0.4714	0.0	2.887	0.8165
Std. Error	0.1491	0.0	1.443	0.4082
Lower 95% CI of mean	10.66	13.00	9.907	9.701

Upper 95% CI of mean	11.34	13.00	19.09	12.30		
Sum	110.0	26.00	58.00	44.00		
Table Analyzed	Waktu penetasan					
Kruskal-Wallis test						
P value	0.0006					
Exact or approximate P value?	Exact					
P value summary	***					
Do the medians vary signif. (P < 0.05)?	Yes					
Number of groups	4					
Kruskal-Wallis statistic	12.58					
Data summary						
Number of treatments (columns)	4					
Number of values (total)	20					
Number of families	1					
Number of comparisons per family	6					
Alpha	0.05					
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value		
Kontrol vs. 5 Menit	-0.1500	No	ns	>0.9999	A-B	
Kontrol vs. 10 Menit	-9.400	Yes	*	0.0234	A-C	
Kontrol vs. 15 Menit	-9.900	No	ns	0.1216	A-D	
5 Menit vs. 10 Menit	-9.250	No	ns	0.1050	B-C	
5 Menit vs. 15 Menit	-9.750	No	ns	0.2453	B-D	
10 Menit vs. 15 Menit	-0.5000	No	ns	>0.9999	C-D	
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2	
Kontrol vs. 5 Menit	7.600	7.750	-0.1500	10	4	
Kontrol vs. 10 Menit	7.600	17.00	-9.400	10	4	
Kontrol vs. 15 Menit	7.600	17.50	-9.900	10	2	
5 Menit vs. 10 Menit	7.750	17.00	-9.250	4	4	
5 Menit vs. 15 Menit	7.750	17.50	-9.750	4	2	
10 Menit vs. 15 Menit	17.00	17.50	-0.5000	4	2	

Lampiran 7. Hasil uji analisis statistik non-parametrik panjang larva *Oryzias celebensis* awal menetas

Number of values	2	4	4	10
Minimum	3.400	4.950	5.490	5.200
25% Percentile	3.400	5.025	5.493	5.350
Median	4.650	5.310	5.500	5.505
75% Percentile	5.900	5.378	6.003	5.710
Maximum	5.900	5.380	6.170	6.370
Mean	4.650	5.238	5.665	5.572
Std. Deviation	1.768	0.2006	0.3367	0.3311
Std. Error of Mean	1.250	0.1003	0.1683	0.1047
Lower 95% CI of mean	-11.23	4.918	5.129	5.335
Upper 95% CI of mean	20.53	5.557	6.201	5.809
Sum	9.300	20.95	22.66	55.72

Table Analyzed	Panjang Larva Awal Menetas
Kruskal-Wallis test	
P value	0.2537
Exact or approximate P value?	Exact
P value summary	ns
Do the medians vary signif. (P < 0.05)?	No
Number of groups	4
Kruskal-Wallis statistic	4.193
Data summary	
Number of treatments (columns)	4
Number of values (total)	20

Number of families	1				
Number of comparisons per family	6				
Alpha	0.05				
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value	
15 Menit vs. 10 Menit	3.875	No	ns	>0.9999	A-B

15 Menit vs. 5 Menit	-4.250	No	ns	>0.9999	A-C
15 Menit vs. Kontrol	-1.850	No	ns	>0.9999	A-D
10 Menit vs. 5 Menit	-8.125	No	ns	0.3116	B-C
10 Menit vs. Kontrol	-5.725	No	ns	0.6099	B-D
5 Menit vs. Kontrol	2.400	No	ns	>0.9999	C-D
Test details	Mean rank 1	Mean rank 2	Mean rank diff.	n1	n2
15 Menit vs. 10 Menit	9.500	5.625	3.875	2	4
15 Menit vs. 5 Menit	9.500	13.75	-4.250	2	4
15 Menit vs. Kontrol	9.500	11.35	-1.850	2	10
10 Menit vs. 5 Menit	5.625	13.75	-8.125	4	4
10 Menit vs. Kontrol	5.625	11.35	-5.725	4	10
5 Menit vs. Kontrol	13.75	11.35	2.400	4	10


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