



...

/ 2.25 2 1.75 1.5 1.25 1

*Echinococcus granulosus*

/ *in vitro*

/

/

%

%

/

Hydatid disease

*Echinococcus granulosus*

.[ 2 1 ]

.[ 5 ]

.[8 7]

Anaphylactic shock

.[10 9]

:

.[12 11]

.[13]

Benzimidazole derivatives

(MBZ) Mebendazole

(ABZ) Albendazole

(FBZ) Flobendazole

.[14] [15]

Elevated serum transaminases

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Alopecia ( ) Bone marrow toxicity  
[16] Teratogenicity

[17]

*Peganum harmala* [18]  
*Thymus vulgaris* *Cyperus rotundus*

[19]  
*Citrullus*  
*Prosopis farcta* *colocynthis*  
*Thymus spicata*

*Capparis* [20]  
*M. communis* *Melia azedarach* *spinosa*

[21]  
*Nigella sativa L.*  
*Quercus infectoria Oliv.* *Hibiscus sabdariffa*

*In vitro*

[22] Smyth

G21 .%1 10  
 (PBS) Phosphate Buffer Solution  $P^H=7.2$   
 ELITE Centrifuge 3000  
 20000 (PBS)  
 Penicillin (IU) International unit  
 Streptomycin  
 (PBS)

[23] Smyth and Baret

X 400 %0.1 20  
 Eosin exclusion  
 ( )

.100 ×

Survival

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.%95 .Exposure time  
.BALB/c *Mus Musculus*

[24] Grand *et al.*

400

[25] Verpoorte *et al.*

40 %96

24

60

°4

Büchi Rotary vacuum evaporator  
°40

(PBS)

1

1000

° 37

(PBS)

...

							:
.	/	30	25	20	15	10	5
							:
.	/	15	12.5	10	7.5	5	2.5
							:
.	/	2.25	2	1.75	1.5	1.25	1

Complete  
Duncan's

P < 0.05  
.[26]

(CRD) Randomized Design  
Multiple Range Test

ANOVA (1)  
(p < 0.01)  
( )

/ 30 %

% , / % /

/ 20 % ,

.% , / 10

% , .%

/ 25 / 30

&

. % , % ,

(p<0.01)

% , % ,  
.%

ANOVA : ( )

(p<0.01)

F				
169.00	3809.59	87620.65	23	
755.84	17037.91	85189.56	5	
25.08	565.27	1695.81	3	
2.17	49.01	735.26	15	×
	22.54	1082.00	48	
		88702.65	71	

: ( )

	60	45	30	15	0	
86.41 E	80.00 gh	84.66 hi	88.00 ij	93.00 j		/
75.50 D	68.00 f	73.66 fg	78.00 gh	82.33 hi		/
66.75 C	55.33 e	65.33 f	68.33 f	78.00 gh		/
34.41 B	19.66 b	34.66 c	39.66 cd	43.66 d		/
1.50 A	0.00 a	1.66 a	2.00 a	4.33 a		/
0.50 A	0.00 a	0.00 a	0.00 a	2.00 a		/
	37.16 A	43.05 B	45.94 B	50.55 C		

...



ANOVA ( )

(p<0.01)

( )

/ 15

% ,

/ 12.5

% , % ,

.%

/ 5

%

% ,

/ 2.5

(p<0.01)

/ 2.5

/ 15 % ,

.% ,

(p<0.01)

% ,

.%

% ,

( )





&

ANOVA : ( )

(p<0.01)

F				
94.29	1732.53	39848.31	23	
390.38	7173.18	35865.90	5	
61.25	1125.45	3376.37	3	
2.20	40.40	606.04	15	x
	18.37	882.00	45	
		4073.31	71	

: ( )

					0	
	60	45	30	15		
87.91 F	83.33 kl	86.00 kl	88.66 lm	93.66 m		/ ,
79.16 E	72.33 hi	75.66 hij	82.00 jkl	86.66 klm		/
72.250 D	64.00 efg	71.33 ghi	74.66 hij	79.00 ijk		/ ,
60.00 C	52.00 d	57.66 de	61.00 e	69.33 fgh		/
48.33 B	33.33 c	40.00 c	56.66 de	63.33 ef		/ ,
20.41 A	10.33 a	16.33 ab	22.00 b	33.00 c		/
A	52.55 A	57.83 B	64.16 C	70.83 D		

ANOVA ( )

(p<0.01)

( )

/ 2.25

...

%

/ 1.75

/ 1.5

% ,

%

/ 1

%

(p<0.01)

% ,

% ,

/ 2.25

. / 1

(p<0.01)

%

.% ,

ANOVA : (5)

(p<0.01)

F				
57.34	1842.86	42385.94	23	
244.02	7842.52	39212.61	5	
30.1	967.42	2902.27	3	
0.56	18.07	271.05	15	x
	32.13	1542.66	45	
		43928.61	71	

&

:( )

					0	
	60	45	30	15		
88.33 F	82.33 jkl	87.00 klm	89.66 lm	94.33 m	95.00	/
82.91 E	78.00 ijk	81.00 jkl	84.66 jklm	88.00 klm		/ ,
72.16 D	62.66 gh	68.33 hi	75.66 ij	82.00 jkl		/ ,
55.41 C	47.33 de	52.00 ef	59.33 fgh	63.00 gh		/ ,
43.91 B	30.66 c	41.33 d	48.00 de	55.66 efg		/
21.08 A	11.00 a	18.00 ab	24.00 bc	31.33 c		/ ,
	52.00 A	57.94 B	63.55 C	69.05 D		

( ) /

[ ]

/

/ 7.5

[20]

%

/

[18]

%

/

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%19.66 / .  
%16.33 [ ]  
/ [ ]  
%20.67 /  
[ ]  
/  
/ .%18.66  
[ ] %80.00  
/ 7.5  
[ ]  
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.[ ]  
.  
% 0.33 /  
[ ]  
%11.00 /  
[ ]  
.%13.33 /  
%40.00 / 12.5  
[ ]  
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[ ]

.%

/

C

. [28]

/ 2.25

%11.00

/

[ ]

[ ]

/

% ,

%52.00

/ 1.75

[ ]

/

[ ]

.%51.66

/

B

C

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