

Fagopyrum

Trigonella foenum-graecum *esculentum*

Echinococcus granulosus

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ABSTRACT

The results of this study revealed significant inhibitory effect of the aqueous extracts of the seeds of the buckwheat, *Fagopyrum esculentum* and the fenugreek, *Trigonella foenum-graecum* on the viability of the protoscoleces of *Echinococcus granulosus* in concentrations of 25 mg/ml, 50 mg/ml, and 75 mg/ml in the periods of 15, 30, and 45, minutes *in vitro*. Herein, the concentration of 75 mg/ml of the buckwheat inhibited the viability of the protoscoleces completely in a period of 45 minutes. In general, the effect of the extracts of both seeds increased proportionally with the increase in concentration and the increase in the period of exposure, By the same token, the effect of the buckwheat was higher than that of the fenugreek on the viability of the protoscoleces of *E. granulosus in vitro*.

Trigonella foenum-graecum

Fagopyrum esculentum

Echinococcus granulosus

45 30 15 / 75 / 50 / 25

/ 75

45

Hydatidiasis

Hydatid disease

Cystice-chinococcosis

Hydatidosis

Cyclo-zoonotic disease

Echinococcus

Metacestode

(1,2)

.(1)

granulosus

Endemic

(3)

Hyperendemic

.(4)

Definitive hosts

Felidae

Canidae

Ungulates

.(5) Intermediate hosts

.(6)

(7)

.(8,9)

Protoscolicidal material

.(10)

.(11)

%70

.(12)

.(13)

.(14,15,16,17)

Fagopyrum esculentum

.1

Buckwheat :

.(18)

B6

Rutine

C

varicose veins ()

(19,20)

Laxative

.(21)

Trigonella foenum-graecum .2

Fenugreek

50

.(18)

.(22)

Herbal medicine

.(20)

Alkaloids

(23)

.(24)

.(20)

Menstruation

Saponin

(25)

.(26)

(27) Smyth

%1

G 21

10

7.2

(PBS) Phosphate buffer solution

3000

PBS

:

(28)

Riose

200

Blender

20

(^o 4)

24

60

Magnatic stirrer

Soakage

Whatman No. 1

Vaccum pump

Crude xtract

Waitman

Lyopholizer

:

. / 75 / 50 / 25 .1

. / 75 / 50 / 25 .2

Complete Radomized Design (CRD)

(P<0.05)

Duncan's Multiple Range Test

.(29)

:

(1)

(P<0.05)

/ 75 (2)

45 %100

/ 50 .%93

45 15 30 45

%64.6 %29.6

/ 25 . 15

		&		&	
	%35.6				45
%65.6		15	30		
	.% 90		"	"	%68
/ 75			/ 25	/	50
		(2)		(P<0.05)	
			(1)		
				(P<0.05)	
	(3)				/ 75
"	"	45	% 26.6		
15	%57.3				30
/ 50		.%90			
		15	30	45	
	/ 25	"	"	%69	%55.6 %45
15	%82				
.%90				45	%63.3
75					
			/ 25	/	50 /
		(3)			

.(30)

E.

granulosus

.(14,16,17)

(14)

/ 75

/ 100

45 %100

%100

(17)

40 / 500

%.19.66

(31)

24

12

6

%20

%10

%5

AL-Eryan

(32)

/ 500

48

/ 75 45 %26.6
 " " 45 15 %45 %69
 .%90 / 50
 (33)
 %100 %40 %30
 . 10 5 1
 (15)
 60 %1.3
 (34)
 25
 / 100 / 75 / 50 /
 (17)
 / 500
 6

Antitumors

Antiinflammatory

Parasitocides

Restoratives

Trigonelline

Alkaloides

Saponins

.(23) Cancer

%10

.(22)

%1

%8

%23

(18)

:(1)

ANOVA

.(P<0.05)

(%)

0.00	2586.7	2470.5	2	
	1389.8	3865.8	2	
	55.3	255.3	4	×
	26.7	32.4	18	

:(2)

(%)

		45	30	15	
56.4 A	93.0	35.6 C	65.6 AB	68.0 A	/ 25
50.4 B		29.6 CD	57.0 B	64.6 AB	/ 50
25.2 C		0.0 E	20.0 D	55.6 B	/ 75
		21.7 C	47.5 B	62.7 A	

&

&

:(3)

(%)

		45	30	15	
72.5 A	90.0	63.3 CD	72.3 B	82.0 A	/ 25
56.5 B		45.0 D	55.6 C	69.0 B	/ 50
38.8 C		26.6 E	32.6 E	57.3 C	/ 75
		45.0 C	53.3 B	69.4 A	

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