

*Citrullus colocynthis*

( 2006/3/27 2006/1/15 )

*Citrullus colocynthis*

(4-2) / (1-0.05) /

**Effect of Colocynth Extract on Ileum Contraction in Mice**

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**ABSTRACT**

Isolated ileal strips of mouse were included in this study to investigate the effect of alcoholic extract of colocynth pulp *Citrullus colocynthis* and its seeds on their smooth

muscles. The results showed that ileal smooth muscles of mouse exhibits regular autorhythmic contractions. The strength and maintenance of normal contraction and that induced by acetylcholine and potassium chloride depended mainly on the extracellular calcium, Also addition of calcium chloride to acetylcholine and potassium chloride induced contraction in solution free from calcium led to augmentation and continuation of tonic phase of the contraction.

Alcoholic extract of colocynth pulp inhibited normal contraction in a concentration dependent manner, and free calcium solution completely closed muscle response to alcoholic extract. It was also observed that this extract gradually inhibited acetylcholine induced contraction.

Different concentrations of the alcoholic extract of colocynth seeds had different effects on ileal smooth muscles. The concentrations (0.05-1) mg / ml activated normal contraction, whereas, high concentrations (2-4) mg / ml inhibited it.

- (1998 )  
 Al-Shaikh Ahmed, )  
 ) (1989 ) (2001  
 .(1999  
 . (Gilani et al., 2004)  
*Varthemia iphionoides*  
*Teucrium* .(Al-Douri et al., 2000)  
 . (Aqel et al., 1989) *polium*

. (Aqel, 1993)

. (Aqel and Shaheen, 1996) Oxytocin

.(Homayoun et al., 2003)

*Topinanthus dodoneifolius*

. (Maurice et al., 2005)

(6-3)

2

Kreb's Solution

(7.3)

(37)

2.5

5.9

121

)

1.2

5.5

1.2

.( 11.5

.(Grand et al., 1988)

(%95)

(200)

(20)

(24)

(5)

(1)

(BDH,Biochemical) Dimethyl Sulfoxide (DMSO)

/ (200) (10) (62)

Griffin, ) Organ bath( 50)

Kymograph

(England

4 2 1 0.7 0.5 0.3 0.1)

/ (10 8 6

/ (2 1 0.5)

(0.2) (BDH,Biochemical)

0.9 0.8 0.7 0.6 0.3 0.2 0.1 0.05)

/ (4 3 2 1

:

.(Sadi, 1990) 100 × / =%

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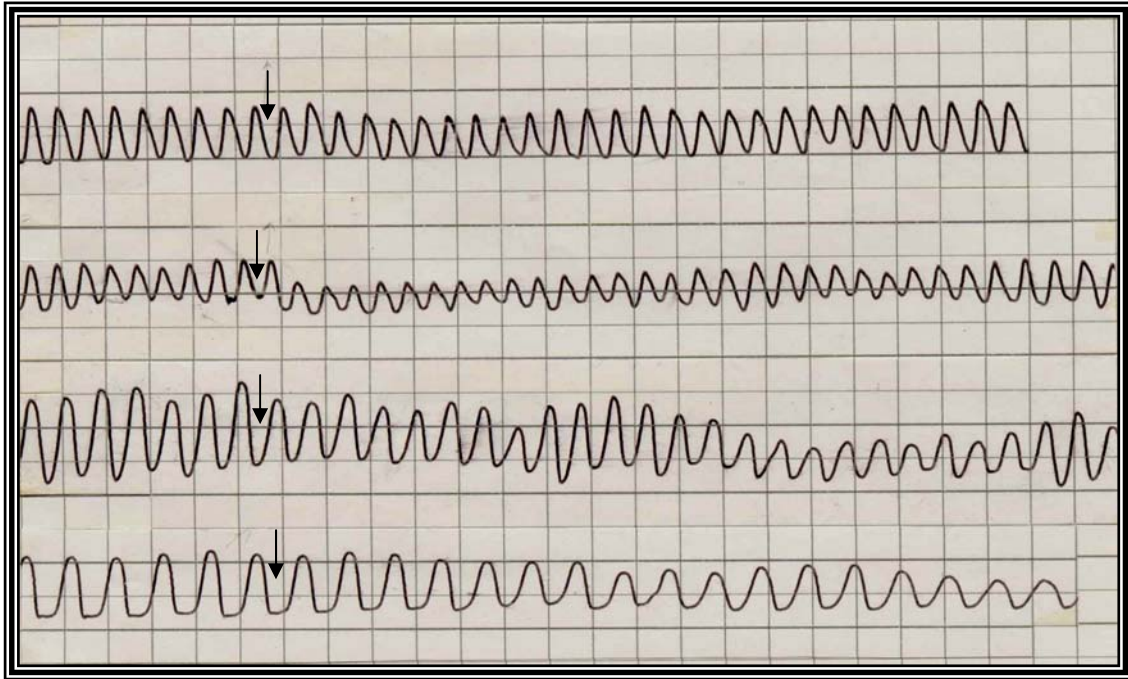
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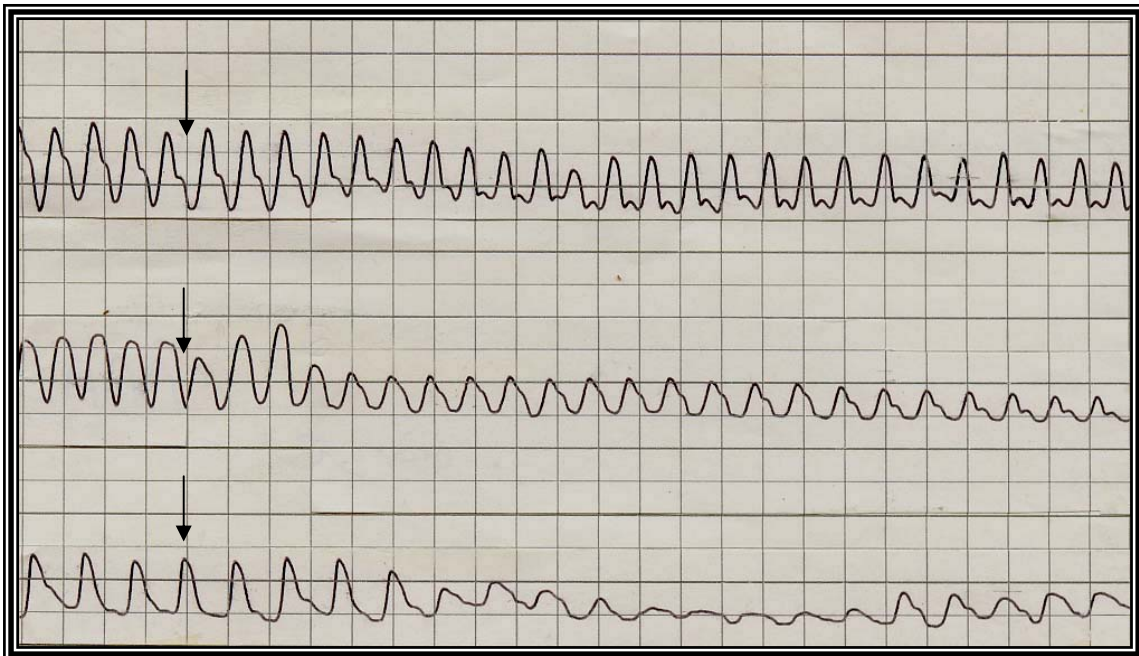
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( / 0.5 . / 0.3. / 0.1. )

( / 0.7



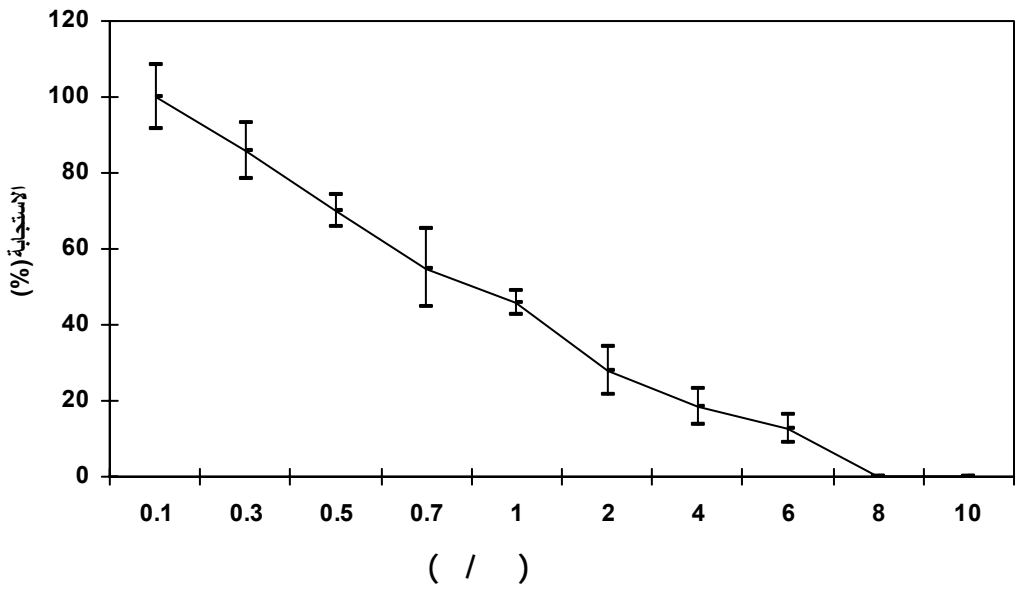
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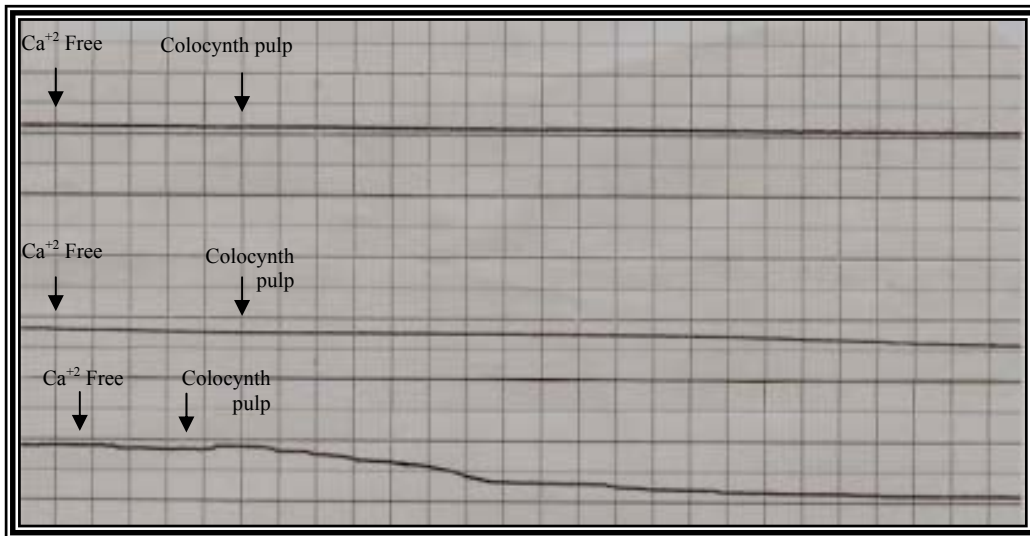
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.(6)



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2 . / 1 . / 0.5 .)

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(7 )

(8 )

(9 )



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0.3 . / 0.2 . / 0.1 . / 0.05 .)

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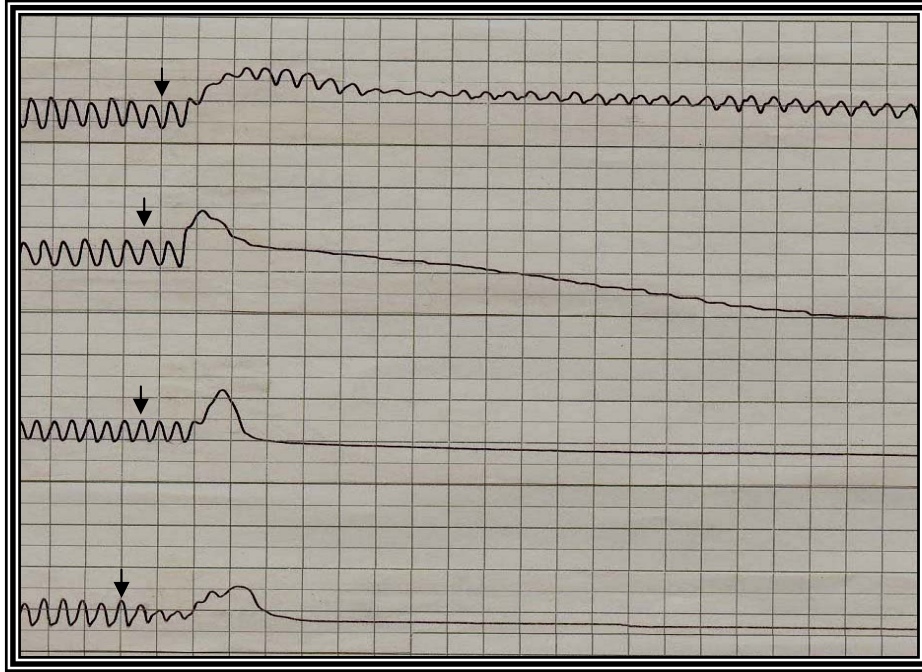


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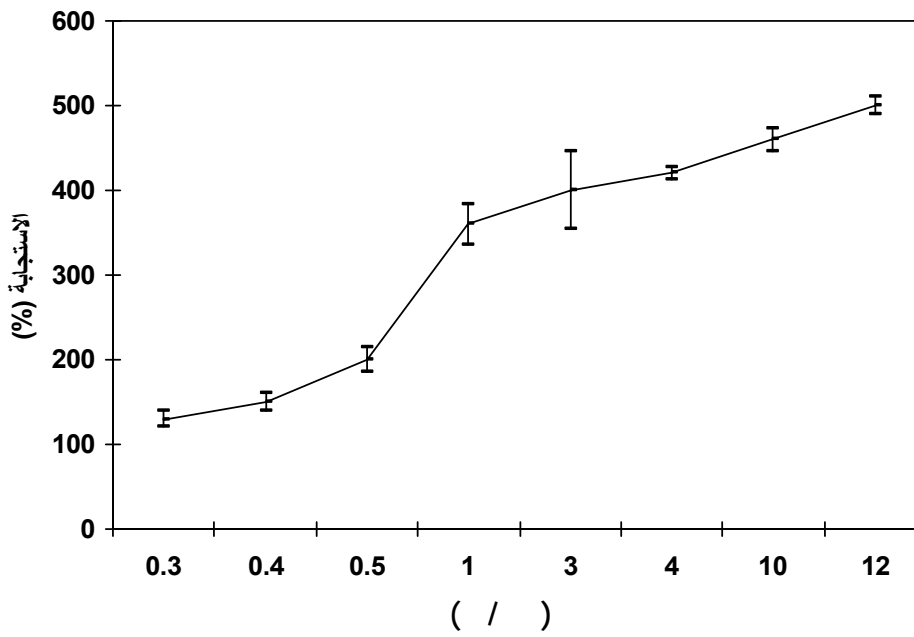
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( / 4 . / 3 . / 2 . / 1 . )



:10

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*Topinanthus dodoneifolius*

.(Maurice et al., 2005)

*Cynara scolymus*

.(Emendorfer et al., 2005)

.(Heinrich et al., 1998)

-

*Artemisia annua*

Salhab and )

(Mojarad et al., 2005)

.(Elayan, 1987)

Spasmolytic activity

.(Emendorfer et al., 2005)

/

/ (1 0.5)

/ (2)

*Orthosiphon aristatus* ( )

. (Shibuya et al., 1999)

.(Aqel, 1993)

/ (2)

.(Shen et al., 2003)

/ (0.05)

/ (4 3 2)

*procumbens*

/ (1–0.2)

*Harpagophytum*

. (Mahomed et al., 2005)

.(Shen et al., 2003)

( / 3) *Japanese angelica*

.(Harada et al., 1984)

.1989

.1999

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