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الملخص

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Effect of Pyrimethamine on Rhythmic Spontaneous and Acetylcholine Induced Contraction in the Ileal Smooth Muscle of Albino Mice

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ABSTRACT

Isolated ileal strips of mouse were included in this study to investigate the effect of different concentrations of Pyrimethamine on the contraction of the smooth muscles. The results showed that ileal smooth muscles of mouse exhibits regular autorhythmic contractions. This normal contraction mainly depended on the extracellular calcium in their tension and maintenance .

Pyrimethamine caused a concentration dependent relaxation, and a high concentration (8-14 mM) of it rapidly caused relaxation for a normal contraction. Free

calcium solution reduced smooth muscles response to pyrimethamine, The low and moderate concentrations (0.2 and 8) mM led to a partial inhibition of the rhythmic contractions and inhibition of tonic phase of acetylcholine induced contraction.

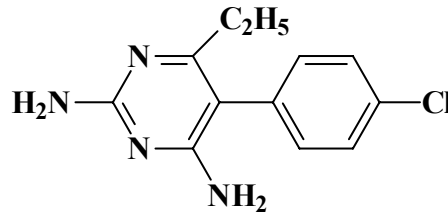
5(4-chlorophenyl)-6-ethyl-2,4-

Pyrimethamine

:

$C_{12}H_{13}ClN_4$

Diaminopyrimidine



.Antimalarial drugs

Trimethoprim

Folic acid

Dihydrofolic

Dihydrofolate reductase

.(Plumb, 2002; Foster, 1996) Tetrahydrofolic acid acid

Sulfonamide

Toxoplasma

Plasmodium

Equine toxoplasmosis

.(Plumb, 2002)

(Date and Haylett, 2004)

chloroquine

.(Abrams, 2001) *Plasmodium falciparum*

Fansidar

Atropine

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Nwafor,)

. (2003

(0.2-0.05)

-0.5)

(3

. (Saad et al., 1988)

(6-3)

2

Kreb's Solution

(7.3)

(37)

2.5

5.9

121

)

1.2

15.5

1.2

.(11.5

(800 200 50)

(30)

(5.970)

(800)

(37)

(7.3)

4 2 0.8 0.6 0.2)

(14 12 10 8 6

(8 2)

(0.2)

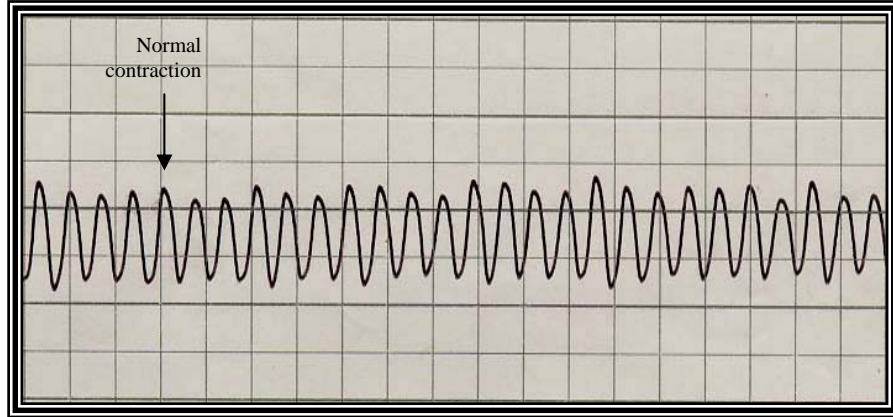
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.Regular autorhythmic contractions

(1)

Spike



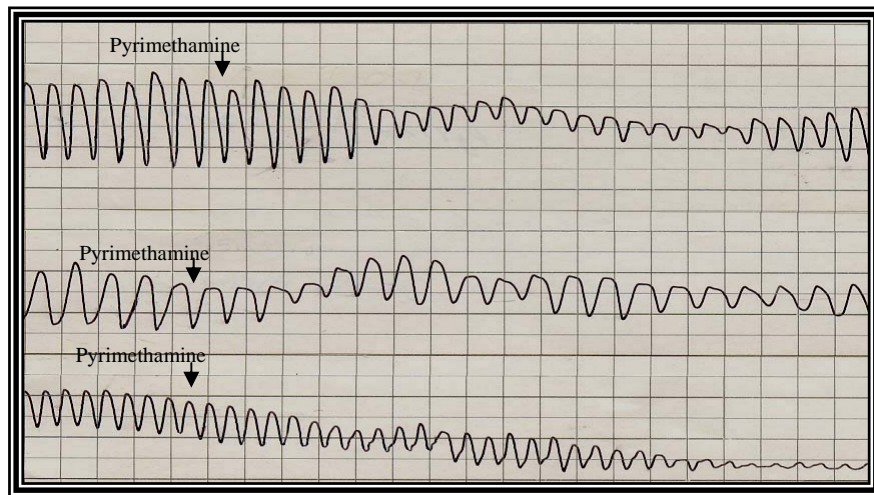
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(14 12 10 8 6 4 2 0.8 0.6 0.2)

(14)

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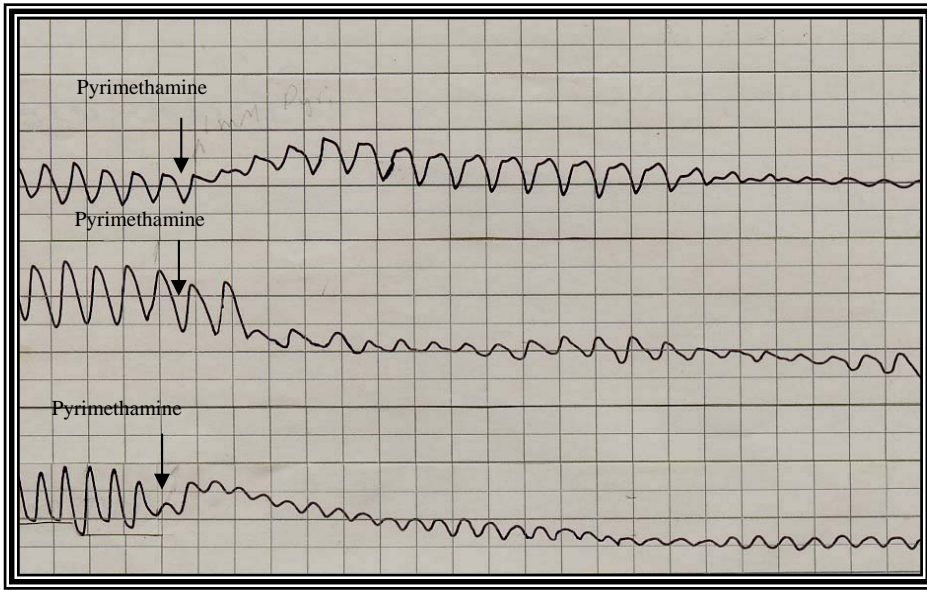
.(4)



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.(0.8 . 0.6 0.2 .)

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.(6 . 4 . 2 .)



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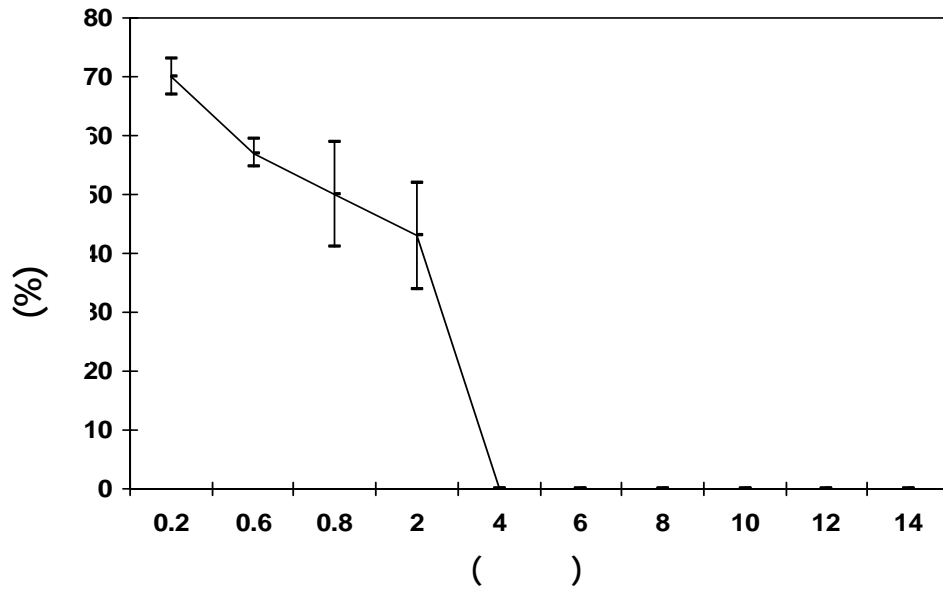
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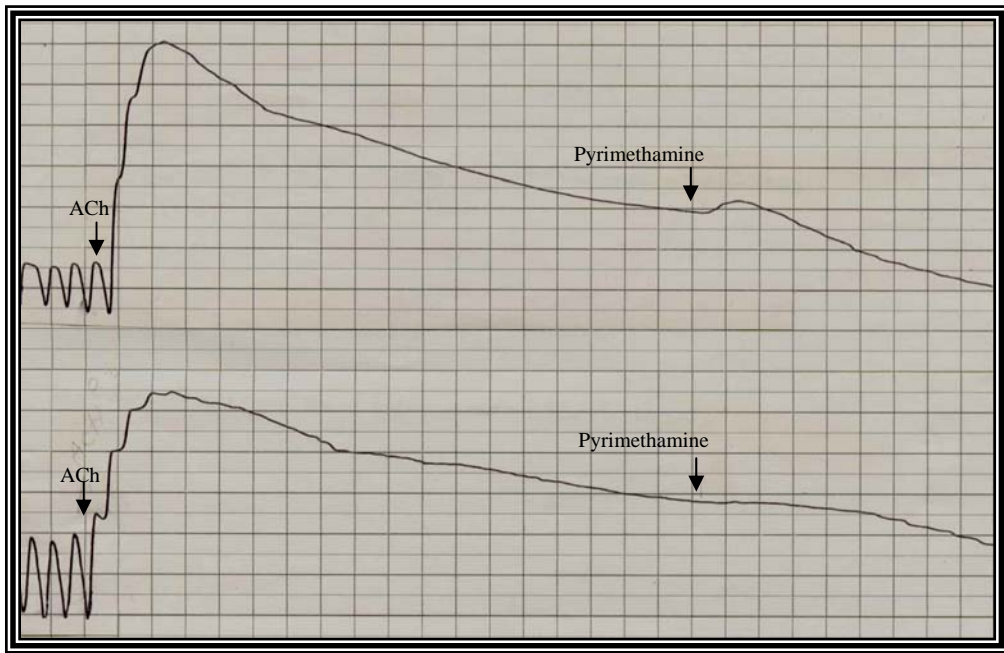
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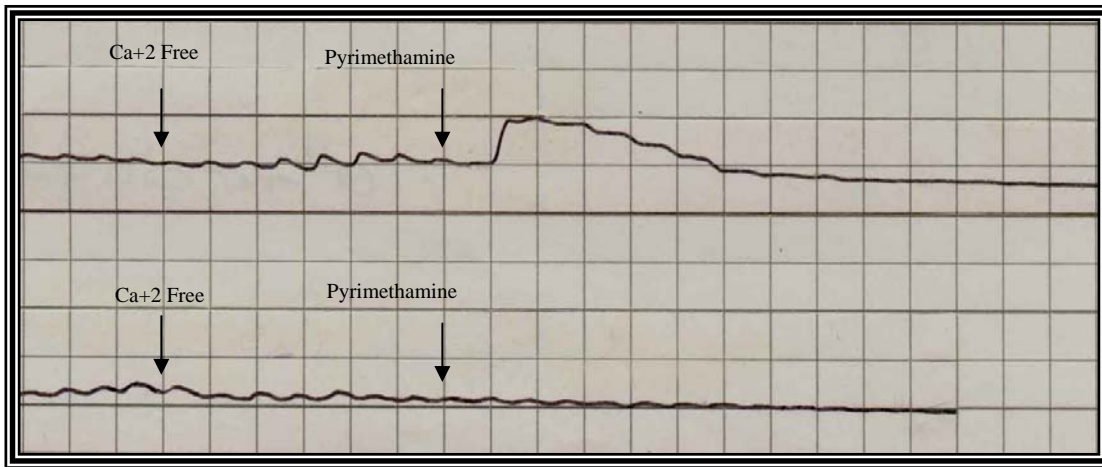


(0.2) : 6
.(8 . 2 .)

(2) .
(8)
(7)

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(2)



: 7

.(8 . 2 .)

(Saad, 1980) (1989)

. (1989)

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