

Oryctolagus cuniculus

(2007/7/16 2007/4/30)

()

Clara cells

()

Terminal bronchiols

(10)

Effect of passive smoking on the number of Clara cells in respiratory bronchiols of domestic rabbits *Oryctolagus cuniculus*

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ABSTRACT

The study investigated the effect of the length of periods of exposure / months to passive smoking on the numbers of Clara cells in the epithelial tissues of terminal bronchiols of rabbit lungs.

Results showed significant increase in the numbers of Clara cells in rabbits exposed for two hours (10 cig./day) to passive smoking during six months.

(2000)

(Lesemes (Speer, 1971)

(Involuntary smoking) and Donofirio, 1992)

(1998) Nilsson Environmental Tobacco Smoke ETS

(1991 Wilson)

(1983 Jarvis) Obstructive respiratory conditions

.

Terminal bronchioles Clara cells

(Stevens and Lowe, 2005)

(Ross, 1995)

(2001)

(1997 Shijubo)

(Clara cells)

.(Stevens and Lowe, 2005)

Surfactant

() lipoproteins

(King, 1982) (Bergmann et al., 1996) surface tension

(great alveolar cells type II) II

(Lceson and Leeson, phospholipids

1985 ; Walker et al., 1986 ; Ross et al ., 1995; (Devendra and Spragg , 2002 ; Stevens and

.Lowe , 2005

.....

) *Oryctolagus cuniculus* (1.6-1.3) (

6) ()

$75 \times 35 \times 35$ (

() $3 \quad 1$

$2 \quad 1 \quad \frac{1}{2}$

.

Neutral buffer formalin solution

$3 \quad 1$

24

.(Luna, 1968)

BP 60°C

/

rotary microtome

6-5

(Delafield

(Compound microscope , Olympus ,

hematoxylin eosin)

Terminal bronchioles

(Clara cells)

Japan)

(1) (7)

(100)

Digital camera, Sony, Japan

:

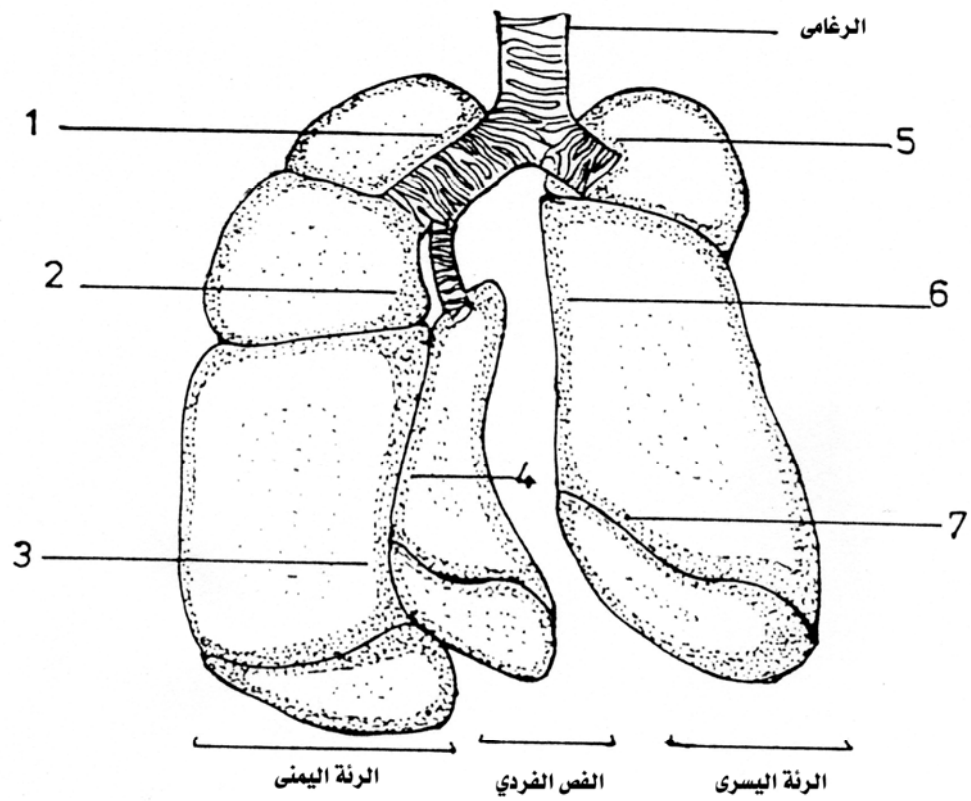
Complete Randomized

Design C.R.D.

.(1980

) S.A.S.

% 5



شكل (1) : صورة مخططة لرئتي الارنب توضح المناطق التشريحية من (1-7) .

()

()

1.

:

(Ccs)

(2 1)

(1)

(48.00)

(40.05)

:

.....

() : 1
()

.%5 :

() .2

:

() (6-2) (2)
(Ccs) ()

40.67-40.50

-42.54

42.83

.

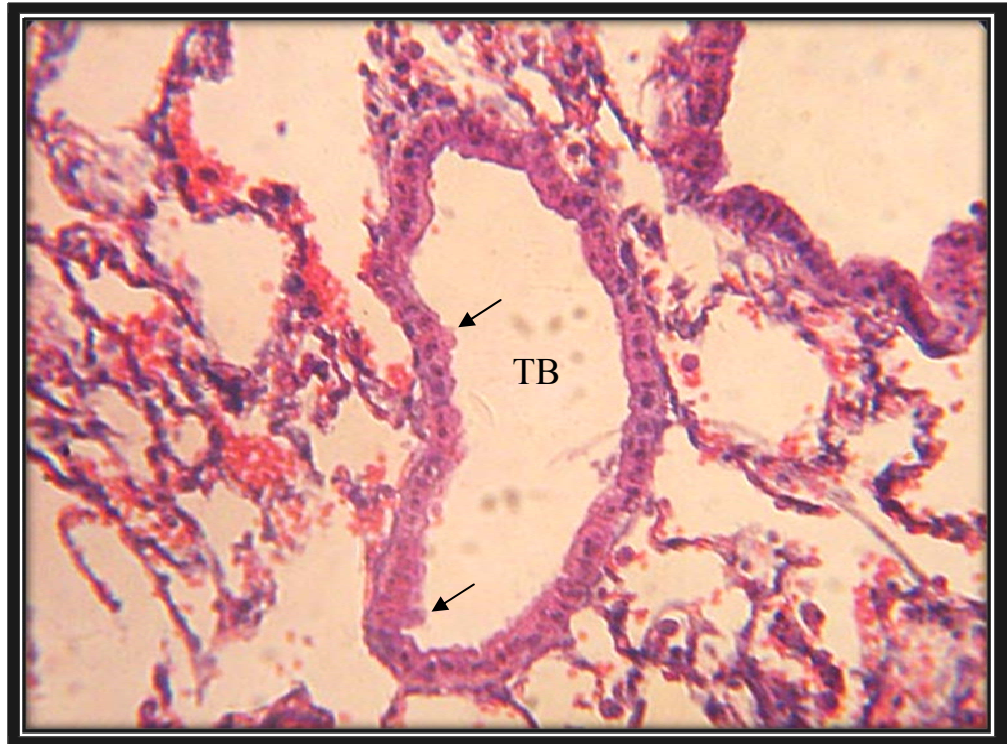
() .3

:

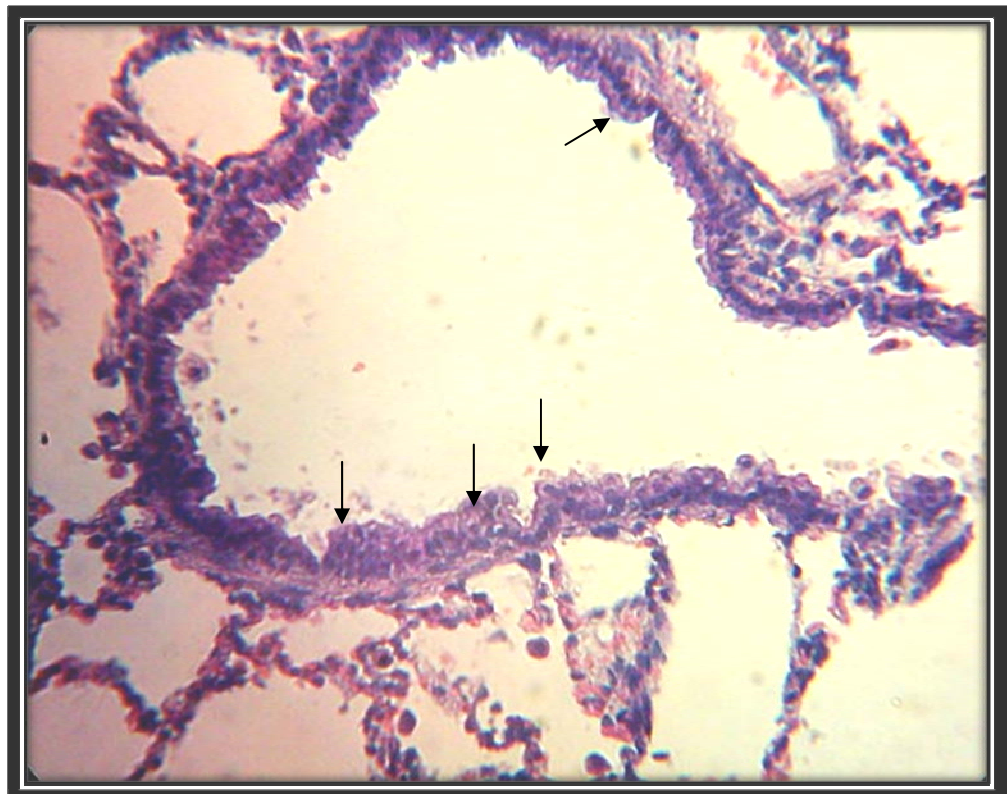
(6 - 2) (3)
()

1 (1) 43.75 41.75 39.33 34.13
6 4 2

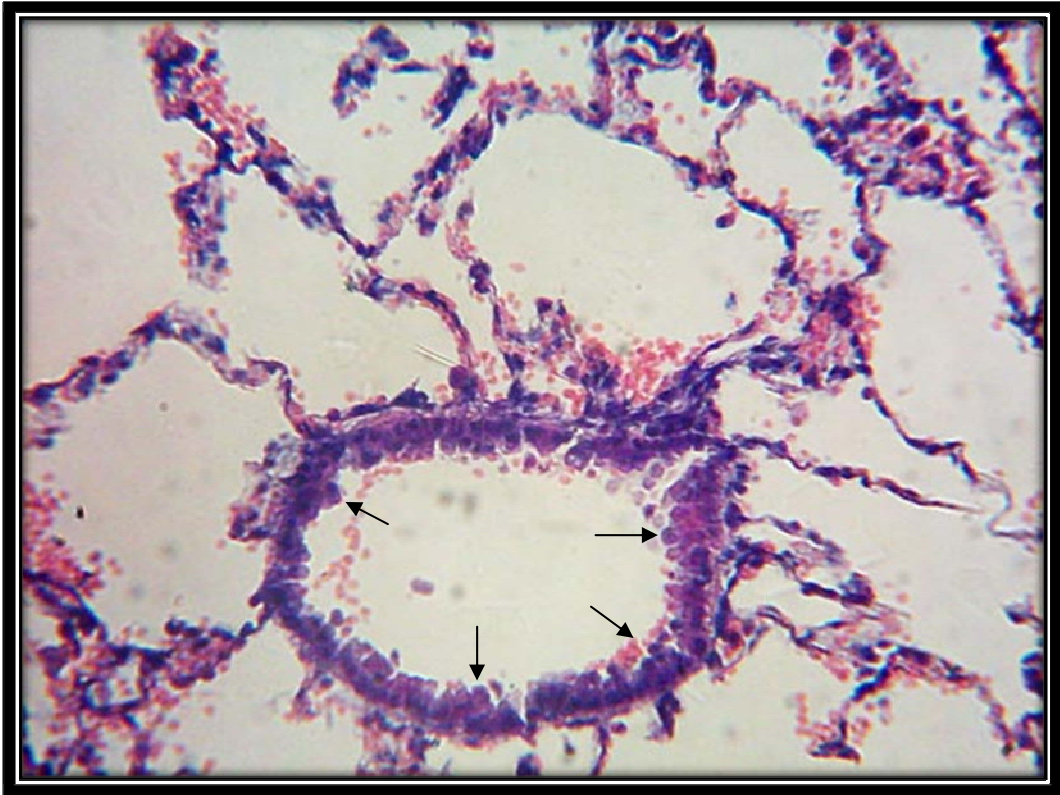
.



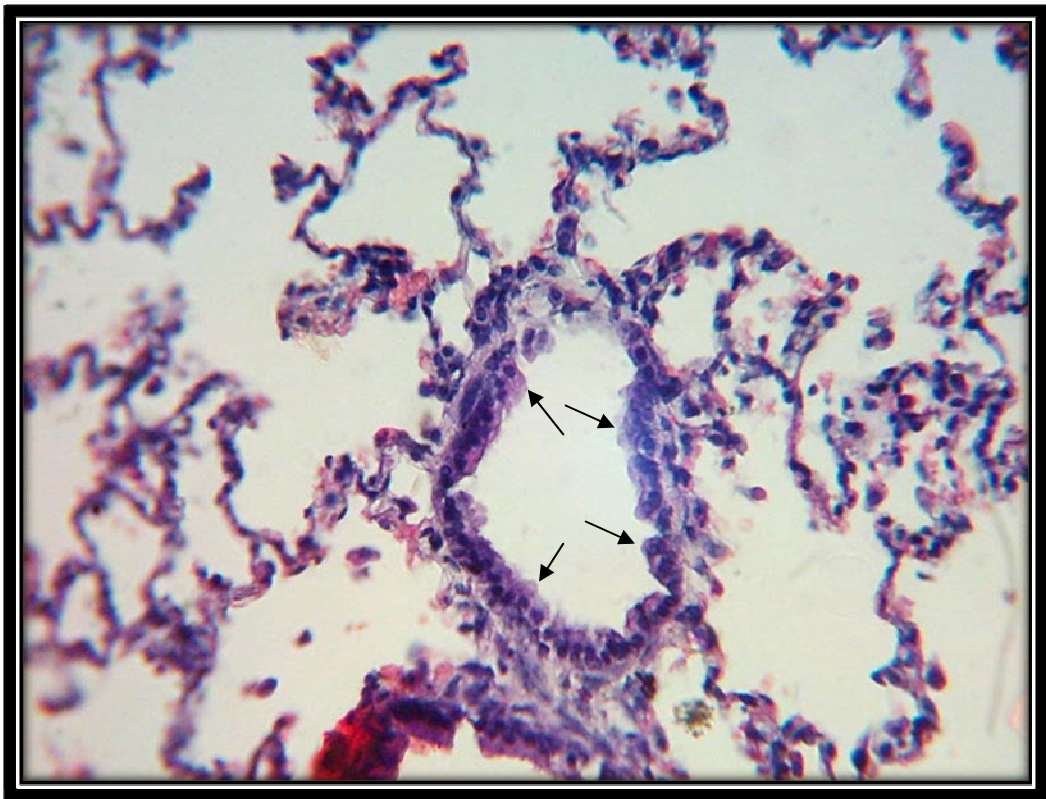
(TB) : 1
 . (480x) ()



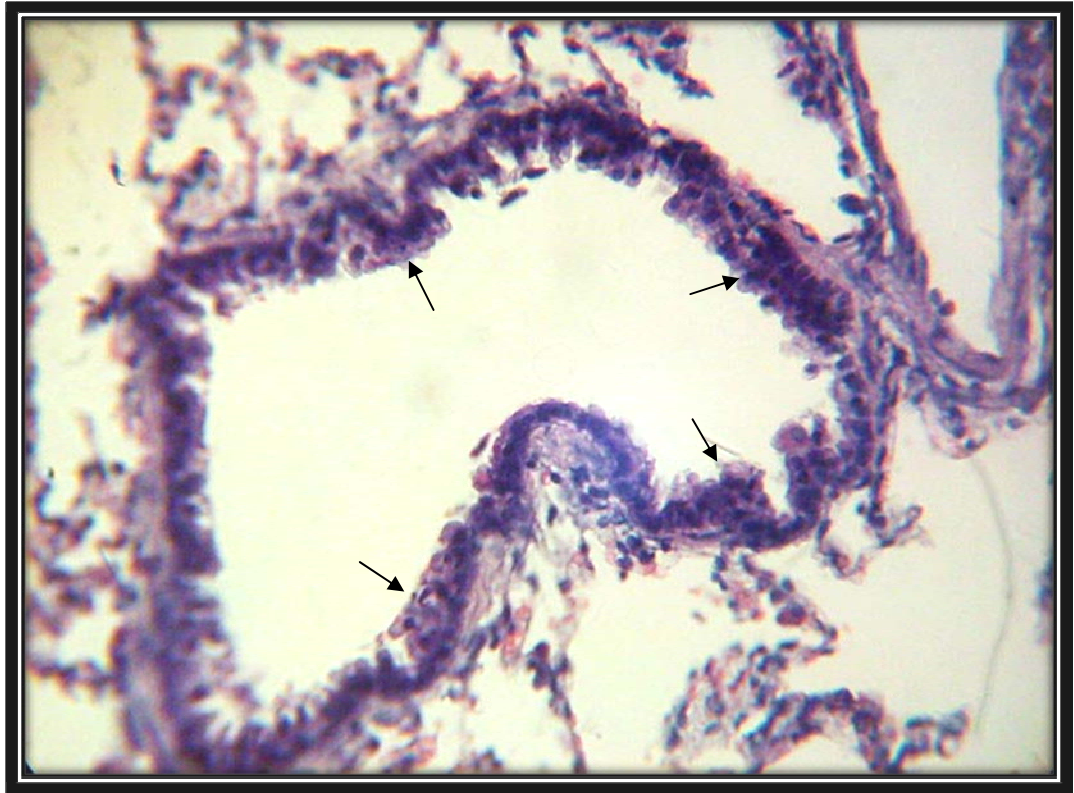
(1) (6 / 2) :2
 . (480x) ()



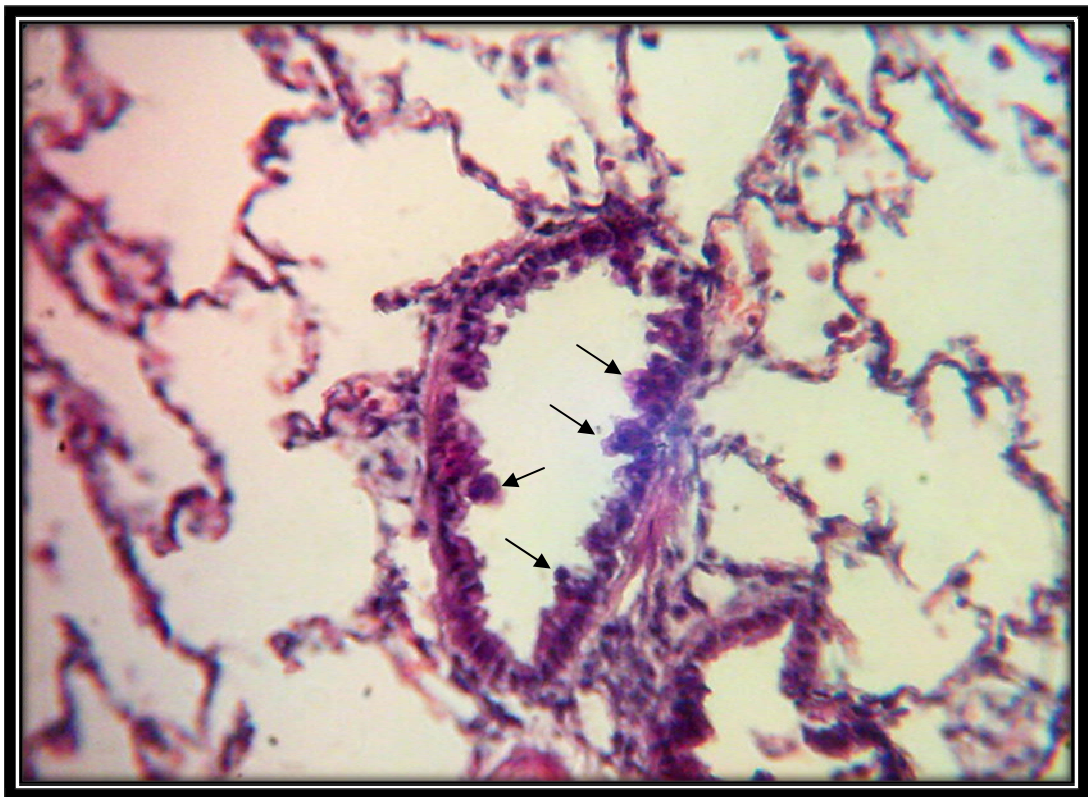
(2) (6 / 2) : 3
 . (480x) ()



(5) (6 / 2) : 4
 . (480x) ()



(6) (6 / 2) : 5
 . (480x) ()



(7) (6 / 2) : 6
 . (480x) ()

6 4

48.00

.(4)

() : 3

	()			
	1	2	4	6
1	34.13 d	39.33 c	41.75 b	43.75 a
2	34.04 d	39.25 c	41.75 b	43.75 a
3	34.04 d	39.25 c	41.83 b	43.75 a
4	33.92 d	39.25 c	41.75 b	43.75 a
5	33.67 d	39.25 c	41.67 b	43.75 a
6	33.67 d	39.21 c	41.83 b	43.83 a
7	33.96 d	39.25 c	41.75 b	43.75 a

.%5 :

Clara cells

(Boers et al ., 1999) ()

phospholipids

(type II pneumocytes) II ()

.(Devereux and Fouts , 1980)

surfactant

(Shijubo et al., 1997) ()

(1992 Bernard)

. (COPD)

(phospholipase) (proteolytic enzymes)
 (Devendra and Spragg ,
 (1987) 2000)
 stem cells .

(Stevens and Lowe, 2005)

(2001) ()

(Devendra and Spragg, 2002)

II particulate phase

. phosphotidyl choline

activated neutrophils

neutrophil elastase

elastase

α 1 – proteinase

macrophages

oxygen radicals

.(Devendra and Spragg , 2002)

: 4

()	()												
	1				2				4				
		½	1	2		½	1	2		½	1	2	
1	33.83 j	34.00 ij	34.33 ij	34.33 ij	36.00 hi	38.00 gh	40.33 ef	43.00 cd	38.00 gh	40.00 efg	43.00 cd	46.00 ab	40.00 e
2	34.00 ij	34.17 ij	34.17 ij	33.83 j	36.00 hi	38.00 gh	40.00 efg	43.00 cd	38.00 gh	40.00 efg	43.00 cd	46.00 ab	40.00 e
3	34.00 ij	34.5 ij	34.00 ij	33.67 j	36.00 hi	38.00 gh	40.00 efg	43.00 cd	38.00 gh	40.00 efg	43.33 cd	46.00 ab	40.00 e
4	33.83 j	33.83 j	34.17 ij	33.83 j	36.00 hi	38.00 gh	40.00 efg	43.00 cd	38.00 gh	40.00 efg	43.00 cd	46.00 ab	40.00 e
5	33.67 j	34.00 ij	33.83 j	33.17 j	36.00 hi	38.00 gh	40.00 efg	43.00 cd	38.00 gh	40.00 efg	42.67 d	46.00 ab	40.00 e
6	33.83 j	33.67 j	33.5 j	33.67 j	36.00 hi	38.00 gh	40.00 efg	43.00 cd	38.00 gh	40.00 efg	43.00 cd	46.00 ab	40.00 e
7	33.83 j	34.00 ij	34.00 ij	34.00 ij	36.00 hi	38.00 gh	40.00 efg	43.00 cd	38.00 gh	40.00 efg	43.00 cd	46.00 ab	40.00 e

.%5

:

.2001

Oryctolagus cuniculus

.1980

. 488 .

.1987

.2000

.131-128 .

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