

2

1

(20)

a
b
c
d

8

(%10)

(b,d)

(c)
(a)

1

2

Effects of calcium deficiency and estrogen depletion On alveolar bone in rabbits

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Abstract

This study was conducted to investigate the relationship between estrogen depletion ,calcium-deficiency,and alveolar bone loss.

Alveolar bone loss was evaluated by radiographic and visual inspection of rabbits with experimental lack of estrogen and calcium.

Twenty female local rabbits (4 months old) were divided into four groups :group a -ovariectomized and given a standard solid diet.

Group b-ovariectomized and given a calcium – deficient diet

Group c-sham-ovariectomized and given a standard solid diet.

And group d-sham-ovariectomized and given a calcium-deficient diet after 8 weeks,the rabbits were sacrificed .

The maxillae, mandibles, femurs, and tibias were removed carefully and fixed in 10% neutral buffered formalin. The bone mineral density of each bone and the alveolar bone loss were measured.the bone mineral densities of the maxillae,mandibles,femurs and tibias in group (c) were significantly higher than those in groups (b)and (d),but not higher than those in group a.however there were no significant differences between any of the groups with regard to alveolar bone loss from the cemento-enamel junction to the molar bone crest.

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((introduction)) :

.(2-1)

(3)

.(4)

.()

: (modeling)
((material&methods))
:
(animals&experimental design)

20

(% .005)

(10)

(10)

bone mineral density
& bone loss measurement
4

(I p)

(exteriorized)

)

(1500

(%10)

:

a

(×)

20)

b

(kvp

120)

(4)

c

) × (

× fr

d

.(

(4 , kvp 25)

(90)

(% .892)

(53)

(cej)

x

(m1,m2,m3)

:

(**statistical analysis**)

(scan prisa-acer)

±

(digitized)

(black &white dots)

(adobe photoshop 4)

(scheffe,s)

.(p<0.05)

(256)

((**results**)) :

(256)

±)

(representing)

abcd)

(

(lightest)

1610 ,00) (21 ,9 ± 1800 ,00) (

(19 ,00 ± 1790 ,00) (23 ,37 ±

(24 ,35 ± 1650 ,00)

(1)

(b,d)

(discussion) :

c

(d b)

.(2) (a)

(depletion)

(bd)

.(3) المجموعات (ac)

(bd)

.(ac)

(ac)

.(5)

)

.(4) (cej)

(soft x-ray) x

(b)

(a) .(b, d)

(d)

(b,d) (c)

)

.(0.005% (p<0.05)

(6) harrison fraser ,

100 / 8) + (a)

(% ,00 8 (c) ,

(d)

(osteomalacia)

.()

payne



(4)

(8)

)

()

.(8)

:

(7) johnson

(90)

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