

## Raloxifene diminished the progression of periapical lesions in ovariectomized rats.

Wayama, M.T.; Ervolino, E.; Cintra, .L.T.A.; Dornelles, R.C.M.; Coclete, G.A.; Gomes-Filho, J.E.

Raloxifene (RLX) has been shown to increase bone density and prevent osteoporosis in postmenopausal women. The aim of this study was to evaluate the effect of RLX on periapical lesions in ovariectomized (OVX) rats. Female Wistar rats were OVX or subjected to sham surgery and received vehicle (veh) or RLX by gavage for 90 days. The treatment groups were as follows: SHAM-veh, OVX-veh and OVX-RLX. During treatment, the pulp of lower first molar was exposed allowing lesion analysis on 7 and 30 days. The rats were killed and the mandibles removed and prepared for radiographic, histopathological, histometric, and immunohistochemical analysis. For statistical analysis it was performed Tukey test or Dunn test ( $p < 0.05$ ). On day 7, the serum calcium and alkaline phosphatase activity were higher in OVX/RLX compared to SHAM/veh. The serum phosphorus was higher in the OVX/RLX in both time points. Radiographically, lesions on day 7 were smaller than lesions on day 30. The histopathological analysis of the OVX/RLX group was similar to SHAM/veh, while OVX/veh group showed larger periapical lesion with more resorption lacunae and osteoclast activity (TRAP / RANKL / HIF-1alpha) than other groups in both time points. There was no statistical difference in immunoreactivity of osteoblast activity (OPG and BALP) between all groups in both time points. The results suggest that hypoestrogenism potentiates the progression of periapical lesions, and this potentiation is diminished by RLX due its effect in decreasing osteoclast activity and bone turnover.

**Keywords:** Raloxifene; Periapical periodontitis; ovariectomy.



4º Congresso Odontológico de Araçatuba  
34ª Jornada Acadêmica "Prof. Dr. José Eduardo Rodrigues"  
10º Simpósio de Pós-Graduação "Prof. Dr. Alício Rosalino Garcia"  
3º Encontro de Técnicos em Laboratório "Rosimeire de Oliveira M. Gon"  
6º Encontro do C.A.O.E.

21 a 24 de maio de 2014  
Faculdade de Odontologia de Araçatuba – UNESP

Presidente: Prof. Dr. Fellippo Ramos Verri  
Vice-Presidente: Prof. Dr. Marcelo Coelho Goiato

373 resumos apresentados