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## Effects of Alfacalcidol on the expression of RANK/RANKL/OPG in aged male rats

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The receptor activator of nuclear factor-kB ligand (RANKL) and osteoprotegerin (OPG) system are regarded as the fundamental reason for systemic osteoporosis while alfacalcidol is a basic medicine for osteoporosis. But it is uncertain whether RANK/RANKL/OPG is involved in the mandible osteoporosis and whether alfacalcidol could be used for the treatment of mandible osteoporosis. This study is to investigate the expression of RANKL/RANKL/OPG in mandible and femur and to discuss the relationship between the systematic osteoporosis and mandible osteoporosis, as well as the effects of alfacalcidon on aged male rats. We observed that as the rats aged, the expression of RANKL increased obviously and the ratio of RANKL/OPG also increased, the absorption is obvious in femur. In comparison, the ratio of RANKL/OPG was decreased in mandible and the absorption and formation in mandible was at a relatively low level. Therefore, it was suggested that the mandible osteoporosis was not completely synchronous to femur. Alfacalcidol was conductive to the bone mass and bone mineral density in femur and mandible.

## **Biography**

Zhou Xiongwen graduated from Xiangya Medical School of Central South University as Dentist and obtaining her Master's degree and Doctorate in Surgery. She has been working at Stomatology Department of Xiangya Hospital for 24 years. She worked as a Visiting Scholar in Medical School of Beijing University and Yale University in the year of 2000 and 2014 respectively. She has been the committee member of China Geriatrics Society and China Plastic Surgery Society.

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