Correlation between the bone densities jaws, condyle mandibular and cervical vertebrae C1, C2, C3 through computed tomography with multislice CT (Hounsfield scale). Osteoporosis local or systemic

Elza Maria Carneiro Mendes Ferreira dos Santos, Vanessa de Araujo Faria, Mayara Cheade and Plauto A C Watanabe
University of São Paulo, Brazil

**Background:** Osteoporosis is a metabolic bone disease that also affects the bones of the jaws and causes an increase in porosity that reflects the integration of quality and bone mineral density, hindering rehabilitation treatment with implants. The gold standard diagnostic tool is bone densitometry by dual energy x-ray absorptiometry (DXA), computed tomography but also proves very effective in assessing bone quality through Hounsfield scale.

**Objectives:** In this study we propose to study the density of jaws and based cervical vertebrae of the Hounsfield scale, found in dental routine scans and correlate their values to identify localized or systemic osteoporosis.

**Materials & Methods:** In this study, we evaluated the bone density of condyle mandibular, regions of the teeth in the maxilla 13, 23, 36.46 mandible and cervical vertebrae C1, C2, C3, through Hounsfield scale CT scans, and correlated their values for diagnosis of osteoporosis localized or systemic. We evaluated 79 multi-slice CT of patients who underwent both examinations of the maxilla and mandible, with 35 men and 44 women over 40 years of age. We used software to analyze and efilm investigated regions.

**Results:** The results show that 83.54% have density below 200 HU from over 03 sites studied, classifying them as systemic osteoporosis, and 16.46% have localized osteoporosis. In females 9.1% have localized osteoporosis and 90.9% systemic osteoporosis. Have the male presents 25.71% and 74.29% localized osteoporosis and systemic osteoporosis respectively.

**Conclusion:** Therefore we can conclude that it is possible to correlate the values of bone density found in dental sites in dental CT, with the cervical vertebrae, the diagnosis of localized or systemic osteoporosis.

**Biography**
Elza Maria Carneiro Mendes Ferreira dos Santos has been graduated from Herminio Ometto Foundation as Doctor of Dentistry, Medicine, with the specialties including Dental Radiology, from the University of Sao Paulo, in 1990. Since then, she’s been working at a Clinic Center of Diagnostic by Imaging. Presently, she is attending Master Course in Image Science and Diagnosis at USP, Medical School of Ribeirao Preto-Sp, investigating the field of Practice Dentistry.

santoselzacarneiro@gmail.com