

Methods: BMD at the lumbar spine (g/cm^2) and at the whole-body were accessed by dual-energy X-ray absorptiometry scans (Discovery-W densitometer, Hologic, Inc.) and TBS (obtained from L_1 - L_4 DXA images) were evaluated in a group of 63 normal men aged ≥ 40 years [mean ($\pm$ SD) = 55.0 ($\pm$ 12.3) years]. Fasting blood collections were performed for measurements of the glucose, insulin and 25(OH)D (ng/ml) levels. Insulin resistance was calculated by HOMA. Adequate statistical tests were used (statistical significance for $p < 0.05$).

Results: The effects of anthropometric and biochemical parameters on TBS are shown in the table.

The correlation analysis between TBS and anthropometric, insulin, insulin resistance (HOMA-IR) and 25(OH)D parameters

Parameter	TBS	p
Weight Kg	-0.6281	0.0000
BMI Kg/m ²	-0.7005	0.0000
Total body fat mass kg	-0.6511	0.0000
Fat mass%	-0.5507	0.0000
IRI mcUI/ml	-0.4412	0.0009
HOMA-IR	-0.4989	0.0000
25(OH)D ng/ml	0.3001	0.0169

Conclusions: The results of this study support the hypothesis that weight, total body fat mass, insulin and insulin resistance are inversely associated with TBS values and play a direct role in bone metabolism. Moreover, these data suggest that blood vitamin D concentrations may have an important role on the bone quality accessed by TBS.

CO07. SERÁ QUE A SUPLEMENTAÇÃO COM BAIXAS DOSES DE CÁLCIO PREVINE COM SEGURANÇA AS ALTERAÇÕES ÓSSEAS ASSOCIADAS À DEFICIÊNCIA EM ESTROGÊNIO? – ESTUDO EM RATOS

Cristina de Mello-Sampayo¹, Aláide Alves Agripino², Duarte Stilwell³, Maria Fátima Vaz⁴, Ana Luisa Fernandes², Beatriz Silva-Lima¹, Helga Santos⁵, Helena Canhão⁶, M. Cristina Marques¹

¹Departamento de Ciências Farmacológicas, Faculdade de Farmácia, Universidade de Lisboa. ²Unidade de Biotecnologia Ambiental (UBiA), FCT-Universidade Nova de Lisboa. ³Clinica Veterinária de Colares, Sintra. ⁴IDMEC, Instituto Superior Técnico, Universidade de Lisboa. ⁵Serviço de Anatomia Patológica, Hospital de Stª Maria, Centro Hospitalar Lisboa Norte, Lisboa. ⁶Rheumatology Research Unit, Instituto de Medicina Molecular, Faculdade de Medicina da Universidade de Lisboa.

Introdução: A suplementação de cálcio no adulto nas doses recomendadas (1-1,2 g) continua a gerar controvérsia por questões de segurança.

Objectivos: Por forma a contornar os riscos associados a esta suplementação, estudou-se o efeito de um suplemento com uma dose inferior cálcio (420 mg) associado a uma fibra solúvel (goma Guar na dose de 450 mg/dia) na prevenção das alterações ósseas associadas à deficiência em estrogénio bem como a sua segurança.

Métodos: Ratos Wistar fêmeas (n = 18) aleatorizados em 3 grupos: sham, ovariectomizados (OVX), ovariectomizados-suplementados (OVX+S) com concha ostra (105 mg/kg) e goma Guar (43 mg/kg) por 53-dias (dose equivalente humana de 420 mg/dia cálcio e 414,5 mg/dia Guar). No dia 60 avaliou-se: peso corporal, depósitos de cálcio na aorta, fígado e rim (coloração Von Kossa), cálcio femoral e urinário (absorção atômica), biomecânica do fémur, ultra-estrutura do osso cortical da tíbia (SEM) e biomarcadores da remodelação óssea. Aplicou-se o teste de Kruskal-Wallis no tratamento dos dados ($p < 0,05$).

Resultados: O peso corporal dos animais suplementados e não suplementados aumentou 22 e 33% respectivamente. Os exames histológicos não revelaram depósitos de cálcio. A remodelação óssea

aumentou ($p < 0,05$) nos OVX e OVX+S. A calciúria aumentou nos OVX ($p < 0,05$) e OVX+S. O suplemento mitigou a hipocalcemia ($p < 0,01$), a redução do cálcio femoral ($p < 0,05$) e a redução da espessura do osso cortical da tíbia enquanto a rigidez e a tensão máxima de fractura do osso femoral aumentaram ($p < 0,05$) quando comparada ao dos OVX.

Conclusões: A suplementação com baixas doses de cálcio de concha de ostras e goma Guar atenuou o ganho de peso corporal, a calciúria, a hipocalcemia e a redução da espessura do osso cortical da tíbia bem como a desmineralização do osso femoral tornando-o mais rígido e resistente à fractura sem risco aparente de depósitos vasculares renais e hepáticos de cálcio.

CO08. CHARACTERIZATION OF A SAMPLE POPULATION OF PATIENTS OF FRACTURARY OSTEOPOROSIS OUTPATIENT CLINIC

Nuno Duarte, José Poupino, Ana Wessling, Ana Paula Barbosa, João Vieira, Paula Camara, Jacinto Monteiro, Francisco Sampaio, Mário Mascarenhas

Fracturary osteoporosis outpatient clinic, CHLN-Hospital de Santa Maria.

Introduction: Osteoporosis (OP) is a disease with increasing prevalence due to increased life expectancy. It presents high morbidity and mortality by fractures associated with it.

Objectives: Characterization of the population of patients sent for the first time to Fracturary osteoporosis outpatient clinic, HSM-CHLN between 1.01 and 30/10/2015.

Methods: Data collection: 1) of the patients sent to this outpatient clinic, 2) demographic and clinical factors associated with risk factors for OP. The data were submitted to appropriate statistical analysis and significance was set at $p < 0.05$.

Results: Of the 101 patients included 91 (90.1%) were women. The average age was 75.7 (± 9.5) years. The average age of menopause was 48.9 (± 4.3) years. 5 patients (6.1%) done hormone therapy (HT). 7 patients (7.9%) had a family history of fractures of the proximal femur. 58.4% of patients had hypertension, 18.8% type 2 DM and 10.1% CRF. 93 patients were not addressed any medication, 5 patients were bisphosphonates, strontium ranelate 1 and 2 supplementation with calcium and vitamin D. 19 patients performed therapy with proton pump inhibitors, 7 recently prolonged corticotherapy and 4 therapy with GnRH analogues. 95 patients had never done a DXA.

Conclusions: 10% of men found in this study counteracts the stereotype that OP is an exclusive disease of women. The average age of menopause was within the normal range. In addition, it should be considered other parameters. TH, family history, comorbidity and existence of concomitant therapies. Early recognition of the OP allows the establishment of measures with the aim of reducing the prevalence of fractures and its complications. We consider it essential to integrated approach of this multidisciplinary approach.

CO09. PARKINSON'S DISEASE AND OSTEOPOROSIS: WHAT RELATION?

Janine Correia, Tânia Sequeira, Juliana Caçoilo, Inês Calvinho, Carlos Bento

Medicina Geral e Familiar.

Introduction: Parkinson's disease (PD) and osteoporosis are chronic diseases associated with aging. Several studies have reported associations between these two entities, particularly regarding to increased risk of fractures.

Objectives: Review the existing evidence about the relationship between PD and osteoporosis. Review the pathophysiological mechanisms involved.