Disclosure of Interests None declared
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AB0851 OBESITY AND RISK OF FRACTURE: DEPENDS ON THE BODY MASS INDEX AND TYPE OF FRACTURE

Jose Rosas¹, Catalina Cano¹, Ana Pons¹, Estibaliz Ivars¹, José Miguel Senabre-Gallego¹, Gregorio Santos Soler¹, Esteban Salas-Heredia¹, José Antonio Bernal-Vidal¹, José Alberto García-Gómez², Xavier Barber³, AIRE-MB. ¹Hospital Marina Baixa, Rheumatology, Villajoyosa (Alicante), Spain; ²Elche General University Hospital, Infectious Diseases, Elche (Alicante), Spain; ³Miguel Hernández University, Statistics, Elche (Alicante), Spain

Objectives: To know the impact of obesity on the risk of fracture.
Methods: Observational study, during 2010-2018, of patients referred for bone densitometry (BMD), to the Bone Densitometry Unit of Rheumatology.
BMD performed by Rheumatology nursing, collect several data (age, gender); osteoporosis (OP) risk factors: age of menopause, smoking and current alcohol intake, hip fracture parents, body mass index (BMI), diseases-drugs that reduce bone mass, fractures, treatment; BMD in lumbar spine (LS), femoral neck (FN); FRAX with BMD. BMI result was as WHO recommendations in kg/m²: Normal: 18.5-24.99; Obesity: ≥30; type I: 30-34.99, type II: 35.39.99, type III: ≥40.
Results: A first BMD in 6.943 postmenopausal women was done. 2.196 (32%) had normal BMI, low weight (BMI <18.5 kg/m²) 103 (1.5%) patients, overweight (BMI 25-29.99 kg/m²) 2.643 (38%) and obesity 2.001 (29%). Obesity (BMI ≥30 kg/m²) vs normal BMI, are older (65±13 vs 61±13, p=0.005), lower current smokers (12% vs 27%) P <0.0001, more treated for OP (37% vs 29%, p=0.002), higher percentage of fractures (44% vs 29%), especially distal radius (DR) (30% vs 11%), p<0.001 and vertebral (19% vs 7%, p=0.002), lower mean T score in LS (-1.1±1.5 vs 1.8±1.5, p <0.0001) and FN (-1.1±1.5 vs -1.6 ± 1.5, p<0.0001) and lower mean FRAX hip fracture with BMD (1.9±3.6 vs 2.4±3.6, p <0.0001). In table, obesity groups are compared with normal BMI.
Conclusion: In postmenopausal women referred for BMD, obese women vs normal BMI are 1. Older. 2. Overall, with higher percentage of fractures. 3. But, women with BMI ≥ 40 kg/m² do not have a higher overall percentage of fracture, except in DR.

References:

	IMC Normal 18.5-24.9 N: 2.196	IMC Obesity I 30-34.99 N: 1.403	P Normal vs Obesity I	IMC Obesity II 35-39.99 N: 421	P Normal vs Obesity II	IMC Obesity III ≥40 N: 177	P Normal vs Obesity III
Age years, mean (SD)	61.4 (13.1)	65.6 (13.1)	0.0001	65.7 (13.1)	0.0001	63.5 (13.1)	0.04
BMI, mean (SD)	22.7 (5.2)	32.1 (5.2)	0.0001	36.8 (5.2)	0.0001	43.4 (5.2)	0.0001
Menopause age, mean (SS)	47.3 (5.5)	47.6 (5.5)	0.11	47.8 (5.4)	0.08	48.3 (5.5)	0.02
Current smoker, n (%)	587 (27)	176 (13)	0.0001	40 (10)	0.02	19 (11)	0.23
Hip fracture in mother, n (%)	254 (12)	144 (10)	0.54	36 (9)	0.59	16 (9)	0.71
Current treatment, n (%)	645 (29)	516 (37)	0.004	147 (35)	0.15	58 (33)	0.52
Corticosteroids, n (%)	156 (7)	94 (7)	1	32 (8)	0.84	18 (10)	0.64
Fracture, n (%)	645 (29)	520 (37)	0.004	168 (40)	0.006	60 (34)	0.41
Colles	235 (11)	160 (30)	0.0001	58 (32)	0.0001	20 (32)	0.007
Vertebral	145 (7)	101 (19)	0.004	32 (18)	0.049	7 (11)	0.68
Hip	66 (3)	32 (6)	0.47	11 (6)	0.61	4 (6)	0.74
Humerus	22 (1)	53 (10)	0.17	14 (8)	0.28	8 (12)	0.17
Other	194 (29)	193 (36%)	0.14	66 (36%)	0.28	23 (37)	0.42
Lumbar BMD, mean (SD)	-1.78 (1.5)	-1.14 (1.5)	0.0001	-1.1 (1.5)	0.0001	-0.25 (1.5)	0.0001
Normal, %	572 (27)	591 (43)	0.0001	230 (57)	0.0001	116 (68)	0.0001
Osteopenia, %	923 (43)	557 (41)	0.45	132 (33)	0.03	47 (27)	0.03
Osteoporosis, %	657 (31)	216 (16)	0.0001	40 (10)	0.005	8 (5)	0.11
Femoral neck BMD, mean (SD)	-1.58 (1.1)	-1.1 (1.1)	0.0001	-0.94 (1.1)	0.0001	-0.79 (1.1)	0.0001
Normal, n (%)	586 (27)	617 (45)	0.0001	195 (47)	0.0001	104 (60)	0.0001
Osteopenia, n	1218	674 (49)	0.001	187 (48)	0.02	58 (33)	0.0001

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AB0852 DOES INADEQUATE RESPONSE TO DENOSUMAB TREATMENT EXIST?

Clara Sanguesa, Susana Holgado Pérez, Melania Martínez-Morillo, Jordi Camins-Fàbregas, Ivette Casafont-Solé, Annika Nack, Àgueda Prior-Español, Maria Aparicio Espinar, Anahy Brandy-García, Lourdes Mateo, Anne Riveros, Alejandro Olive, Laia Gifre. Hospital Germans Trias i Pujol, Badalona, Spain

Background: Denosumab (Dmab), an anti-receptor activator of nuclear factor kappa-B ligand (RANKL) monoclonal antibody, has been shown to increase bone mineral density (BMD) at lumbar spine and proximal femur up to 21.6% and 9.1% respectively at 10 years of treatment. Additionally, Dmab has shown a marked decrease of vertebral, nonvertebral and femoral fractures during treatment. Nowadays, the existence of inadequate response to Dmab treatment remains unknown.

Objectives: to describe the clinical, analytical and densitometric characteristics of patients with an inadequate response (IR) to Dmab treatment. IR was defined as the presence of a new fragility fracture during Dmab treatment or a significant decrease in BMD (≥5% at lumbar spine or ≥4% at proximal femur) within at least 12 months of therapy.

Methods: retrospective study including patients with osteoporosis with an IR to Dmab. Therapeutic compliance was checked by clinical anamnesis and the electronic prescription. Risk factors for osteoporosis, history of fragility fractures, previous anti-osteoporotic treatment, densitometric and analytical data were collected before and at the moment when IR was diagnosed.

Results: Fourteen patients were included (12 women and 2 men) with mean age of 75 ± 9 years. The causes of osteoporosis were: postmenopausal (n=8, 57.14%), induced by glucocorticoids (n=3, 21.43%), alcoholic (n = 1, 7.14%) and multifactorial (n=2; 14.28%). Nine patients (64.28%) had been previously treated with oral or intravenous bisphosphonates for a mean of 5.8 ± 2.76 years. Nine patients (64.28%) had previous vertebral fractures (median 2, range 1-8), 2 of them had also presented a femoral fracture. During Dmab treatment, 7 patients (50%) presented a decrease in BMD (mean loss: proximal femur -3.5%, p=0.09; lumbar spine - 5.8%, p=0.046); and 7 had incidental fractures: 5 vertebral (median 1, range 1-4), 1 humerus and 1 femur. The duration of treatment with Dmab was 3.82 ± 1.85 years in patients who sustained fragility fractures and 2.39 ± 1.4 years in patients with a BMD decrease. A multiple myeloma was diagnosed in a patient with vertebral fractures during Dmab treatment. After The identification of Dmab RI most patients maintained same treatment. Of the patients with incidental fragility fractures, 2 started combined treatment with teriparatide and Dmab, 1 changed to teriparatide and 2 maintained the same treatment. Of the 7 patients with BMD only 1 changed to zoledronic acid.

Conclusion: Most patients with IR to Dmab treatment had previous fragility fractures and had been previously treated with bisphosphonates for a mean duration of 5 years. The patients with a significant decrease in BMD had lesser duration of Dmab treatment than those who sustained fractures during Dmab treatment. Only one patient had a clinical cause for the IR development.

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AB0853 BONE DENSITOMETRY IN CROHN'S DISEASE: RISK FACTORS FOR OSTEOPENIA AND OSTEOPOROSIS

Sabrina Soua¹, Dhilel Issaoui², Hela Kchir², Nouha Trad¹, Hatem Chaabouni¹, Nadia Maamouri¹. ¹La Rabta Hospital, Tunis, Tunisia; ²La Rabta Hospital, Tunis, Tunisia

Background: Osteoporosis and osteopenia are common situations in chronic inflammatory bowel disease (IBD), particularly in crohn's disease.