Patient characteristics	n = 50
Women [n (%)]	31 (62)
Women who fractured after menopause [n (%)]	31 (100)
Age at time of fracture (years) [mean ± SD]	70,32 ± 10,04
Thoracic vertebral fractures per patient [mean ± SD]	2,30 ± 1,38
2 or more thoracic vertebral fractures [n (%)]	29 (58)
Lumbar vertebral fracture [n (%)]	27 (54)
Rib fracture [n (%)]	7 (14)
Time from 1st PFT to vertebral fracture (days) [mean ± SD]	743,62 ± 773,17
Time from fracture to posterior PFT (days) [mean ± SD]	619,18 ± 633,62
Smoking habit [n (%)]	- Non-smoker: 23 (46) - Ex-smoker: 16 (32) - Active Smoker: 11 (22)
Inhaled corticosteroid therapy [n (%)]	44 (88)
Vertebral fracture treatment [n (%)]	- Medical: 49 (98) - Surgical (vertebroplasty, kyphoplasty): 1 (2)
Deaths within the 1st year following a fracture [n (%)]	0
BMI (Kg/m^2) [mean ± SD]	29,65 ± 5,08
Vitamin D deficiency (<20 ng/mL) [n (%)]	9 (18)
Osteopenia or osteoporosis after fracture [n (%)]	- Osteopenia: 13 (26) - Osteoporosis: 14 (28)
Pulmonary pathology [n (%)]	- Asthma: 20 (40) - COPD: 24 (48) - ILD: 6 (12)
COPD phenotype [n (%)]	- Chronic bronchitis: 10 (41,7) - Emphysema: 8 (33,3) - Overlap: 6 (25)
COPD GOLD 2024 classification after fracture [n (%)]	- Exacerbators (E): 2 (8,3) - Non-exacerbators (A or B): 22 (91,7)

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AB0286

LONG-TERM EFFECTS OF WEIGHT RESTORATION ON BONE MINERAL DENSITY (BMD) IN PATIENTS WITH ANOREXIA NERVOSA

Keywords: Bone, Observational studies/ registry, Diet and Nutrition

G. Adami[1], A. Fassio[1], C. Simona[2], M. Molgora[2], M. Chimini[2], B. Segattini[2], D. Gatti[1], M. Rossini[1], A. Dalle Grave[2], R. Dalle Grave[2]. [1]*University of Verona, Rheumatology Unit, Verona, Italy*; [2]*Casa di cura Villa Garda, Verona, Italy*

Background: Anorexia nervosa is an eating disorder characterized by extremely low body mass index (BMI) with consequent low bone mineral density (BMD) and higher risk of fractures.

Objectives: To investigate the long-term effects of body weight restoration on BMD in patients with anorexia nervosa.

Methods: We conducted a prospective observational study of patients with anorexia nervosa admitted to an eating disorder clinic for intensive weight restoration program, inpatient (20-week program) followed by an outpatient long-term follow-up. Clinical, demographic, body composition and BMD data were collected at baseline (admission), at week 20 (W20) and after >5 years.

Results: 53 women were enrolled in the study. Mean age at baseline was 32±9.2 years and the median follow-up was 8.0 years (IQR 9.1-7.0). Mean BMI at baseline was 15.8±1.7. Lumbar spine BMD Z-score at baseline was -0.72±1.14, femoral neck Z-score at baseline was -0.37±0.97 and total hip Z-score at baseline was -0.40±1.06. All patients had normal (>20 ng/mL) 25-OH-vitamin D levels throughout the study. All subjects achieved BMI ≥18 at W20 and in aggregate BMD increased at all sites at W20. However, after a median follow-up of 8.1 years (IQR 7.3-8.6), 14 patients had BMI <18 (weight loss after discharge – in red in the figures), whereas 39 subjects kept BMI ≥18 over a median follow-up of 8.0 years (IQR 6.9-9.2), in blue in the figures. **Figure 1** shows the cumulative probability of losing BMD at various sites stratified by maintenance of BMI above or below the threshold of 18. **Figure 2** shows the trend in BMD levels at the femur and lumbar spine in patients that maintained BMI≥18 or <18.

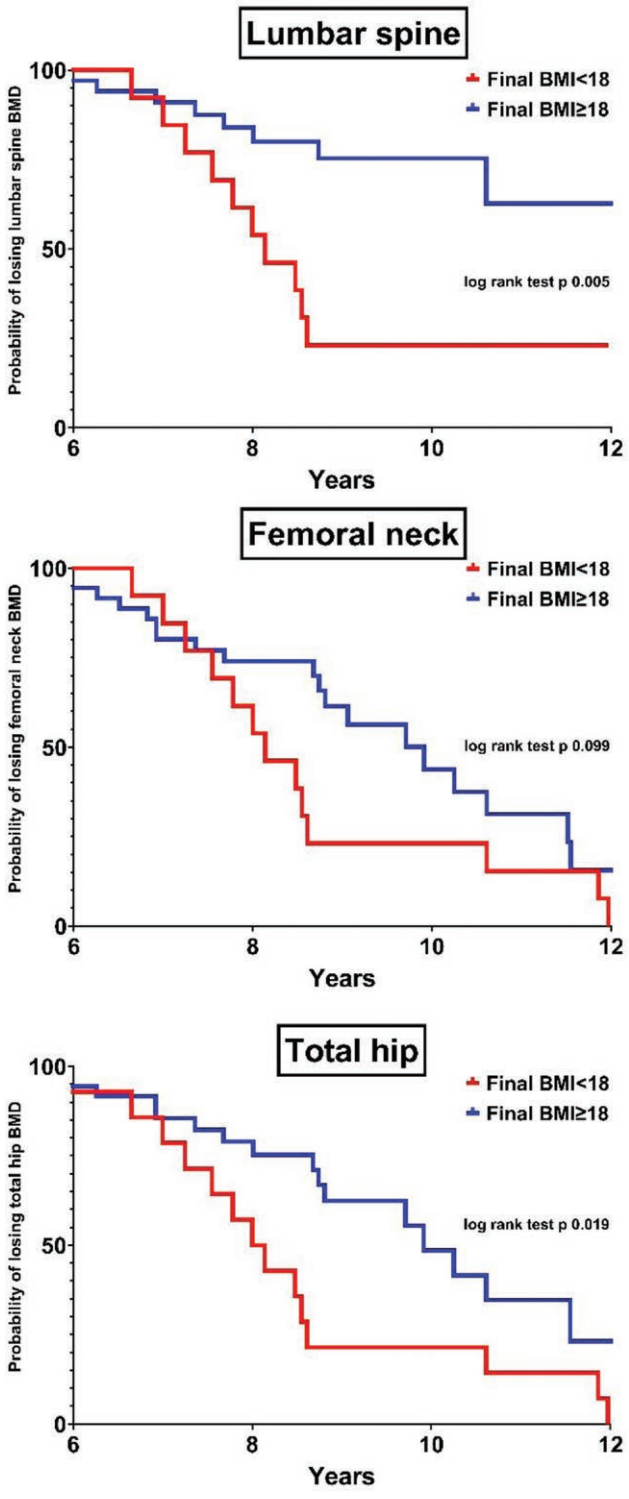

Figure 1.

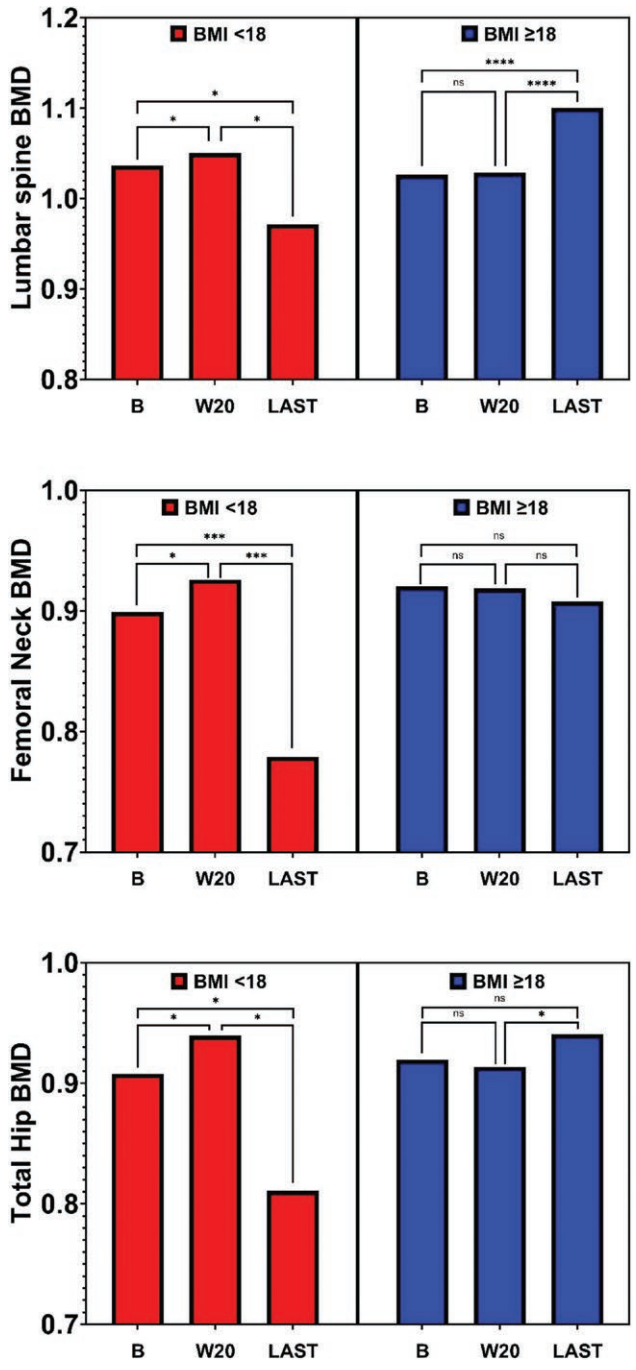

Figure 2.

Conclusion: In aggregate, short-term weight restoration was associated with a significant increase in BMD at all sites. Keeping BMI ≥18 in the long term was associated with a positive non-plateau effect on lumbar spine BMD. In contrast, weight loss after discharge was associated with a significant bone loss at all sites.

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AB0287

FACTORS AFFECTING PERSISTENCE OF DENOSUMAB TREATMENT IN PATIENTS WITH OSTEOPOROSIS: A RETROSPECTIVE COHORT STUDY

Keywords: Observational studies/ registry, Bone, Prognostic factors

S. Paredes[1,2], D. Taverner[1], E. Costa[1], A. Pàmies[3], C. Tomas[3,4], D. Llop[2], C. Llop[5]. [1]*Hospital Universitari Sant Joan de Reus, Rheumatology, Reus, Spain*; [2]*Universitat Rovira i Virgili, Medicine, Reus, Spain*; [3]*Hospital Verge de la Cinta, Rheumatology, Tortosa, Spain*; [4]*Hospital Comarcal de Amposta, Rheumatology, Amposta, Spain*; [5]*Unitat de Farmacia, Servei Català de la Salut, Tarragona, Spain*

Background: Perseverance in pharmacological treatment for osteoporosis is a key factor in fracture prevention. Denosumab has demonstrated superior persistence compared to other anti-osteoporotic drugs in previous studies. Patient-related factors may influence treatment persistence.

Objectives: To describe the characteristics of a cohort of patients undergoing denosumab treatment. To assess clinical and/or demographic characteristics that are significantly associated with treatment persistence.

Methods: Patients diagnosed with osteoporosis aged over 50, visited in Rheumatology outpatient clinics of three hospitals in Tarragona, who were prescribed denosumab between January 2013 and December 2023 and had received at least two doses of denosumab. Clinical and demographic data were collected from the patients' medical records. Logistical regression analysis was conducted to examine the relationship between different factors and treatment persistence. The variables studied included age, gender, polypharmacy, Charlson index, cognitive status, fracture risk, use of psychoactive drugs, previous osteoporotic fractures and previous osteoporosis treatments.

Results: A total of 854 patients were recruited. Patients lost to treatment due to death (130 patients) and withdrawal due to improvement according to medical criteria (108) were excluded. 616 patients were analyzed. The characteristics of these patients are shown in Table 1. A total of 468 patients continued with treatment (76%) while 148 discontinued it (24%). The mean follow-up time was 59 months (minimum 12 – maximum 144). Variables significantly associated with lower treatment discontinuation were previous osteoporosis treatment (OR=0.67; CI: 0.48-0.93); polypharmacy with 5-10 drugs (OR 0.66; CI 0.45-0.95); polypharmacy with more than 10 drugs (OR 0.6; CI 0.37-0.97). The variable significantly associated with higher discontinuation was dementia (OR 1.96; CI 1.34-2.89).

Conclusion: The studied cohort comprises an aging population with high comorbidity, a significant presence of dementia, and polypharmacy. Denosumab treatment persistence is significantly influenced by patient's cognitive status, use of more than 5 drugs, and having received previous osteoporosis treatments. These factors should be considered when initiating long-term treatments, reevaluating the type of treatment, and reinforcing follow-up for these patients.

Table 1. Characteristics of the analyzed population

	N = 616
Age (median, IQR)	81 (74 – 87)
Sex (n women, %)	560, 90.90%
Cognitive state (n, %)	
Good	470, 76.30%
Mild dementia	115, 18.66%
Moderate dementia	30, 4.87%
Densitometry at diagnosis (yes, %)	416, 67.53%
Column densitometry values T-score (median, IQR)	-3.10 (-3.70 - -2.37)
Hip densitometry values T-score (median, IQR)	-2.50 (-2.90 - -1.90)
Vitamin D values before starting treatment ng/dl (median, IQR)	33.80 (28 – 44)
Osteoporosis risk (n, %)	
High	263, 42.69%
Very high	353, 57.31%
Charlson index (median, IQR)	4 (3 – 6)
Psychoactive drugs (yes, %)	311, 50.49%
Corticoids (n, %)	
Up to 5 mg prednisone	63, 10.22%
More than 5 mg prednisone	27, 4.38%
No	524, 85.06%
Polypharmacy (n, %)	
Up to 5 different drugs	205, 33.28%
Between 5 and 10	293, 47.56%
More than 10	116, 18.83%
Previous osteoporotic fracture (n, %)	
Other fractures	23, 3.73%
Hip	122, 19.81%
Vertebral	204, 33.11%
No	186, 30.19%
Previous osteoporosis treatment (n, %)	
IV Bisphosphonates	25, 4.06%
Oral bisphosphonates	213, 34.58%
Teriparatide	102, 16.56%
No	274, 44.48%