Background: Scientific interest in the clinical aspects surrounding vitamin D has increased exponentially in recent years. Unfortunately, this interest is not currently associated with a proportional level of consensus. Indeed, the large number of studies in this field, which are often of low quality and secondary importance has confused even experts and driven them towards controversial positions.

Objectives: To shed light on this topic, we arranged a meeting with the aim of collecting the opinions of 50 experts in different specialties ("D.. Battito Group"), including internists, endocrinologists, rheumatologists, pediatricians, geriatricians, dermatologists, gynecologists and nephrologists. This meeting dealt with specific questions regarding the management of hypovitaminosis D and aimed to investigate the opinions of Italian experts on this topic. Six key questions were addressed in the meeting.

Methods: After a short lecture and a 30 minutes discussion, all the experts expressed their opinions, which were recorded together with any specific commentary.

Results: The results of the meeting demonstrated the presence of insufficient agreement on many key questions regarding the management of vitamin D deficiency, even among clinical experts.

Conclusion: We hope that the various scientific societies will recognize and analyze the inconsistencies in their own positions and reach adequate consensus, especially on the tenets required for conducting proper and useful investigations on the topic, and that the results of these future new studies will be able to shed the needed light.

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AB0832 VERTEBRAL PAIN AND PHYSICAL PERFORMANCE INDICES IN POSTMENOPAUSAL WOMEN WITH VERTEBRAL FRACTURES DEPENDING ON PRESENCE OF OBESITY

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Background: Vertebral fractures (VFs) are important osteoporotic fractures which manifest increased morbidity and mortality; however, their clinical features usually differ. Obesity is one of the important parameters of risk of osteoporotic fractures and vertebral pain syndrome.

Objectives: The aim of the research was to study the indices of vertebral pain (VP) and physical performance (PP) in postmenopausal women with VFs depending on presence of obesity.

Methods: We examined 87 females aged 50-89 years old with VFs in thoracic and/or lumbar spine which were divided into 3 groups: I – patients with normal weight (NW), according to WHO criteria, n=32; II – women with overweight (OW), n=37; III – females with obesity (OB), n=18. The parameters of VP in thoracic and/or lumbar spine were measured by 11-component visual analog scale (VAS), the indices of PP using static and dynamic functional tests (Thomayer, Schober tests, chest excursion, lateral trunk lean, 3-, 4-, 15-meter tests, "stand up from the chair", static balancing). Bone mineral density (BMD) was measured by DXA (Lunar, Prodigy).

Results: We have found the significantly higher parameters of BMD of femoral neck and lumbar spine in women with VFs and OB compared to females with NW. However, we did not establish any reliable differences of VP neither in thoracic nor in lumbar spine depending on obesity presence. Also, we did not reveal the significant differences of most parameters of PP, except for the indices of chest excursion (mean parameter, of the inhalation and exhalation) which were reliably higher in patients with OB.

Conclusion: In conclusion, the indices of VP and PP do not differ in postmenopausal women depending on obesity presence, except for chest excursion that should be taken into account in rehabilitation programs for females with VFs.

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AB0833 BONE TURNOVER MARKERS – DO THEY HAVE A ROLE AS PREDICTORS OF MORTALITY AND NEW FRACTURE IN PATIENTS WITH FRAGILITY HIP FRACTURE?

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Background: In Osteoporosis (OP), bone turnover markers (BTM) are potential monitors of drug adherence/efficacy as well as predictors of bone loss and fracture risk. However, without solid evidence, international guidelines still do not recommend their systematic measurement to assist treatment decision and follow-up.

Objectives: To evaluate the predictive value of baseline BTM (beta cross-laps – bCL; osteocalcin – OC) in the outcome (death and/or new fracture) of patients that suffered a fragility hip fracture (FHF).

Methods: Patients referred to a Fracture Liaison Service from March 2015 until March 2017 with a FHF were considered for this study. Clinical/demographic variables were collected, including: age at time of fracture, sex, serum OC and serum bCL at baseline and outcome (death, new fracture, lost to follow-up) until January 2018. Cox regression analysis was used to calculate hazard ratios (HR) for values of OC and bCL; p<=0.05 was considered statistically significant.

Results: From a total of 522 patients, 218 presented a baseline measurement of OC and/or bCL and were included for analysis. Table 1 summarizes clinical and demographic characteristics of the sample. Twenty seven patients died (median days until death=457, min 160, max 1049) and 18 had a new fracture (median days until refracture 343.5, min 30, max 835); 129 patients maintained follow-up. Median serum bCL was

0.71 ng/ml (0.12-3.28, n=217) and median OC was 28.2 ng/ml (6.80-198.60, n=215). Through univariate analysis, higher bCL values predicted worse survival outcome (HR=3.09; 95% CI=1.14-8.39;p=0.026), even after adjustment for age/sex (HR=4.28; 95% CI=1.48-12.29;p=0.007); however, it did not predict higher risk of new fracture (HR=3.00;95%CI=0.85-10.68; p=0.089). Serum OC levels showed no statistically significant results, neither for mortality (HR=1.01; 95% CI=0.99-1.03;p=0.341) nor new fracture (HR=1.01;95%CI=0.99-1.04;p=0.057).

Abstract AB0833 Table 1

Total (N)	215
Age at admission, y (median, min-max)	82 (65-99)
Sex, female (n,%)	172, 78.9
BMI (N)	195
Underweight (n,%)	4, 2.1
Normal (n,%)	90, 46.2
Overweight (n,%)	66, 33.8
Obesity class I (n,%)	29, 14.9
Obesity class II (n,%)	5, 2.6
Obesity class III (n,%)	1, 0.5
Degree of dependence (N)	205
Totally dependent (n,%)	10, 4.9
Partially dependent (n,%)	53, 25.9
Autonomous (n,%)	142, 69.3
Type of fracture (N)	217
Transtrochanteric (n,%)	111, 51.2
Femoral neck (n,%)	90, 41.5
Subtrochanteric (n,%)	16, 7.4
Vertebral fracture (N)	213
0 (n,%)	92, 43.2
1 fracture (n,%)	53, 24.9
≥ 2 fractures (n,%)	68, 31.9
Femur neck BMD, g/cm ² (mean, SD, N)	0.66, +0.12, 198
Femur neck T score (mean, SD, N)	-2.79, +1.1, 198
>2.5 (n,%)	62, 31.3
≤2.5 (n,%)	136, 68.7
vitD, ng/ml (median, min-max, N)	23.24, 3-97

Conclusion: In this cohort, increased serum levels of bCL predicted higher mortality risk. These results support the value of BTM in OP, strengthening their potential as prognostic markers, besides treatment monitors.

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AB0834 FREQUENCY OF OSTEOPOROTIC HIP FRACTURE IN AN ALGERIAN HOSPITAL

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Background: The hip fracture is the most serious complication of osteoporosis. It is a public health issue in elderly because of its frequency, severity and economic impact. We report the result of an 18 months investigation.

Objectives: The aim of this study was to determine the frequency of osteoporotic hip fractures and identify the risk factors of osteoporosis and falls leading to these fractures.

Methods: Cross-sectional, prospective, descriptive study. Were included patients with spontaneous or secondary low trauma hip fractures during 18 months, who consulted at trauma unit, Mohamed Lamine Debaghine hospital. Have been collected: patient characteristics, risk factors for osteoporosis and falls, type of treatment and length of hospital stay.

Results: 115 cases of hip fractures were recorded out of a total of 486 fractures, with a frequency of 16.8%, from all the fractures operated, it represents 22.7%. We noted a female predominance (62.6%) with a sex ratio of 0.60, the average age is 76.44 +/- 11.71 years. The associated comorbidities are: cardiovascular (55.7%), diabetes (33%), dysthyroidism (11.4%), asthma (10.4%), chronic renal failure (5.2%) prostate adenoma (4.5%). The fracture mechanism is dominated by the fall (92%), it is most often a domestic accident: slipping (30%), stumbling (26%), ablation (11%), falling on the stairs (7%). The risk factors for osteoporosis

identified are: age more than 70 years (72.8%), female sex (62.6%), low BMI (18%), sedentary lifestyle (15.3%), corticosteroid therapy 7.2%, smoking (6.3%), history of rheumatoid arthritis in 3.4% and early menopause in 2.1% of patients. The risk factors of fracture: visual disturbances (40%) neuromuscular disorders in 11, 9%, poor health (more than 3 chronic diseases) in 9% of patients, mother's history of hip fracture (1.7%). A personal history of osteoporotic fracture was noted in 17.4%, 7 patients presented a contralateral hip fracture. The average duration of hospitalization is 5.2 +/- 2.5 days. The treatment is surgical in 81.6% (40.8% prostheses).

Conclusion: Through this study, we found that osteoporotic hip fracture is frequent. The osteoporosis risk factors identified were female sex, advanced age, corticosteroid therapy and sedentary lifestyle. Fall risk factors were dominated by visual disturbances and neuromuscular disorders.

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AB0835 BONE MINERAL LOSS DURING ULCERATIVE COLITIS : PREVALENCE AND RISK FACTORS

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Background: Patients with ulcerative colitis (UC) are at increased risk of bone mineral loss, leading to osteoporosis and osteopenia. Etiopathogenic factors may be divided into factors specific to the underlying inflammatory process, and factors resulting from the disease process, such as, malabsorption of nutrients vitamins and minerals,decreases in weight,and the use of bone toxic medications.

Objectives: to evaluate the prevalence and possible risk factors for bone mineral density disorders in patients with UC.

Methods: A retrospective study from January 2000 to December 2018, including all patients with UC followed in our department. Bone mineral density was determined by dual energy X-ray absorptiometry.

Results: Seventy eight patients were included in our study (36 men, 26 premenopausal, and 17 postmenopausal women) with an average age of 47.5 years. Forty osteodensitometries (DXA) were performed : 17 were normal (42.5%), 13 patients had osteopenia (32.5%) and 10 suffered from osteoporosis (25%). Among the 23 patients having a bone mineral loss, the average Z-score were (-0.8 SD) in the femoral neck and (-1.78 SD) in the lumbar (L2-L4) spine whereas the average T-score were (-1.23 SD) in the femoral neck and (-2.15 SD) in the lumbar (L2-L4) spine. Osteoporotic patients included 12 men, 5 premenopausal, and 6 postmenopausal women with an average age of 53.04 years. The research of risk factors has shown that 14 patients with bone mineral loss (60.86%) underwent systemic corticosteroid treatment with an average duration of 6 months. Tobacco intoxication has been mentioned in 8 cases (34.78%) and alcoholism in 6 cases (26.08%). Otherwise, patients with bone mineral loss showed a lower body mass index (average BMI =19.46) than patients with normal bone density (average BMI = 23.64). Anemia has been reported in 11 cases with low bone density (47.82%) and low level of albumin as noted in 8 cases (34.78%). No osteoporotic fractures has been reported. Pan-ulcerative Colitis was reported in 11 cases (47.82%) and acute severe ulcerative colitis in 10 cases (43.47%).

Conclusion: Our study shows that more than half of our patients having ulcerative colitis (UC) who had an osteodensitometry presented bone demineralization (osteoporosis or osteopenia). It seems to be associated with a low BMI, an extended and severe form of UC,and the cumulative corticoid doses.

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