including the TUG test. TUG performance was considered low if it took, 15 seconds or longer. A vertebral fracture assessment (VFA) image was obtained which was subsequently scored for the presence of significant vertebral deformities. VF grade 1 were excluded.

Results: Eighty four patients were included. The mean age of our patients was 62.29 ± 8.27 years with an average body mass index (BMI) of 31.45 ± 6.21 kg/m² [18.18-44.38]. According to the WHO classification 42 patients (50%) had osteoporosis. Among 84 women, 47 had a low TUG performance. Subjects with low TUG performance had an older age (57.94 vs 65.71 years) ($p < 0.001$), and had a significantly lower BMD at femoral neck (0.825 g/cm³ vs 0.752 g/cm³) ($p < 0.001$). There was no significant difference between the two groups regarding duration of menopause, history of previous fragility fracture, body mass index and BMD at total hip and at vertebral site. Osteoporosis was found in 30 patients who had low TUG performance and in 12 patients who had normal TUG performance without statistically significant difference ($p = 0.08$). VF were assessed in 22 subjects. VF were found in 20 patients with low TUG performance (42.55%). Compared with the group with normal TUG performance, subjects with low TUG performance had significantly higher number of fracture ($p < 0.001$). A significant correlation was found between the number of VF and the score of get up and go test (Khi-2 test, $p < 0.001$).

Conclusion: Our study found a strong relationship between TUG performance and prevalent vertebral fracture. Therefore evaluation of additional risk factors may improve the prediction of vertebral fracture in post-menopausal women.

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FRI0486

NO IMPACT OF ANTI-RANK LIGAND AND PTH ANALOGUES ON CARDIOVASCULAR RISK IN IDIOPATHIC AND POSTMENOPAUSAL OSTEOPOROSIS: A SYSTEMATIC LITERATURE REVIEW AND META-ANALYSIS

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Background: Emerging evidence suggests a possible association between osteoporosis and cardiovascular disease^{1,2}. The mutual effects of drugs used in these two diseases are now a point of interest. Two meta-analyses have been conducted to explore the cardiovascular effects of bisphosphonates^{3,4}. There is no review for other osteoporosis treatments, such as anti-rank ligand antibody and parathyroid hormone analogues.

Objectives: A literature review and meta-analysis of randomized controlled trials was conducted to address the impact of PTH analogues and anti-Rank Ligand on cardiovascular events and overall mortality in individuals with idiopathic osteoporosis.

Methods: A systematic literature review was conducted in December 2017 in the PubMed, Embase, Cochrane databases, and updated on PubMed in December 2018, by selecting trials including a treatment (anti-Rank Ligand or PTH analogue) and a control group. We also conducted a search for abstracts of the French Rheumatology Society, American College of Rheumatology and European League Against Rheumatism annual meetings over the past 3 years. Relative risks and 95% confidence intervals for each event were estimated using the Inverse Variance fixed effects method. The main endpoints were the occurrence of cardiovascular events and all-cause of mortality.

Results: Of the 2782 reports initially found (503 articles via PubMed, 1309 via Embase, 474 via the Cochrane Library and 15 abstracts from annual meetings, 16 articles were used for the meta-analysis. All studies were randomized; no exploitable prospective cohort study was found. The number of adverse events of interest was available for 6 studies for the anti-Rank Ligand corresponding to 26 864 patient-years. After meta-analysis, there was no significant difference between the placebo group and the anti-Rank Ligand group for overall mortality (RR 0.79, 95% CI (0.60-1.04)), the combined cardiovascular endpoint (overall mortality, coronary artery disease and stroke: RR 0.95, 95% CI (0.78-1.16)), and the individual risk of coronary artery disease (RR 1.14, 95% CI (0.76-1.73)), arrhythmia (RR 1.03, 95% CI (0.63-1.68)) and ischemic or hemorrhagic stroke (RR 1.03, 95% CI (0.72-1.47)). The number of adverse events of interest was available for 10 studies for the PTH analogue group, corresponding to 6 220 patient-years. After meta-analysis, there was no significant difference between the placebo group and the PTH analogue group for overall mortality (RR 0.89, 95% CI (0.35-2.29)), the combined endpoint (overall mortality, coronary artery disease and stroke: RR 0.71, 95% CI (0.37-1.36)), and the individual risk of coronary artery disease (RR

0.65, 95% CI (0.19-2.27)), arrhythmia disorders (RR 1.43, 95% CI (0.73-2.80)) and ischemic or hemorrhagic stroke (RR 0.60, 95% CI (0.19-1.96)).

Conclusion: The anti-Rank Ligand and the PTH analogues have no short-term impact on the cardiovascular risk and the overall mortality in postmenopausal osteoporosis. To better answer the question whether these treatments are able to reduce the long-term cardiovascular risk, further comparative studies with longer duration are required.

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FRI0487

UTILITY OF TRABECULAR BONE SCORE (TBS) FOR FRACTURE RISK ASSESSMENT IN GLUCOCORTICOID-INDUCED OSTEOPOROSIS

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Background: Glucocorticoid-induced osteoporosis (GIOP) is the one of the most common forms of secondary osteoporosis (OP). Fractures in GIOP frequently occur with higher than expected bone mineral density (BMD) values. The Trabecular Bone Score (TBS) is a gray-level textural index derived from DXA images that provides information about bone microarchitecture and fracture risk independently of BMD; therefore, TBS measurement could be useful for identifying patients with high fracture risk associated with glucocorticoid (GC) treatment.

Objectives: To analyse the clinical utility of TBS for fracture risk assessment in GC treated patients and compare it with BMD assessment, the gold-standard diagnostic test.

Methods: 127 patients on chronic GC treatment (≥ 5 mg/day) were included (mean age 62 ± 18 years, 63% women) in this cross-sectional study. The medical history and anthropometric data were collected, as well as measurements of bone metabolism parameters, bone densitometry (DXA) at lumbar spine and femur (considering OP when T-score ≤ -2.5), TBS (considering degraded microarchitecture [DMA] with values < 1.230) and dorsolumbar X-ray to assess vertebral fractures (VF). BMD and TBS