Conclusions Add-on treatment with BEL was effective to achieve low disease activity during PSL tapering which would lead to reducing GC related organ damages. However, recurrence was observed in both groups indicating the need for GC tapering strategies in an individual setting.

Methods Patients who fulfilled ≥4 ACR criteria for SLE and had a DEXA scan performed were followed longitudinally. The incidence of MACEs documented by imaging studies was evaluated. Osteoporosis/fracture at baseline was defined as a T score of <–2.5 or Z score <–2.0 at the hip/femoral neck/spine, or old fragility fractures. The effect of osteoporosis on incident MACEs was studied by Cox regression, adjusted for confounders.

Results 383 SLE patients were studied (age 40.5±13 years; 94% women). Osteoporosis/fractures was present in 113 patients at baseline. Over 153±41 months, 44 MACEs (acute coronary syndrome [n=19]; ischemic stroke [n=19]; peripheral vascular disease with digital gangrene [n=6]) developed in 42 patients. The incidence of MACEs was significantly higher in patients with osteoporosis/fracture than those without (1.59 vs 0.63/100 patient-years; p=0.001). The cumulative risk of MACEs by KM plot was significantly higher in the osteoporosis than non-osteoporosis groups (p=0.002). Cox regression revealed osteoporosis/fracture was an independent risk factor for MACEs after adjustment for age, sex, vascular risk factors, past MACE, aPL antibodies, and the use of immunosuppressive drugs, aspirin/ warfarin, statins, vitamin D and bisphosphonates (HR 2.41[1.25–4.67]; p=0.009). 62(16%) patients succumbed and osteoporosis/fracture at baseline was associated with vascular mortality (HR 11.1[1.02–120]; p=0.048) but not with all-cause mortality after adjustment for the same confounders.

Conclusions Osteoporosis increases the risk of MACEs and vascular mortality in patients with SLE, which is not accounted by traditional vascular risk factors.

**LP-065**

**PREVALENCE AND RISK FACTORS OF FRAGILITY FRAC TURES IN SYSTEMIC LUPUS ERYTHEMATOSUS (SLE): A LONGITUDINAL STUDY OVER 12 YEARS**

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**Background** To study the prevalence and risk factors of fragility fractures in patients with SLE.

**Methods** 383 patients who fulfilled ≥4 ACR criteria for SLE and had a DEXA scan performed (baseline) were longitudinally followed for new fragility fractures. Osteoporosis/fracture was defined as a DEXA T score <-2.5 or Z score <-2.0 at the hip/femoral neck/spine or a history of old fractures. The cumulative incidence of new fractures was studied by Kaplan-Meier’s analysis and risk factors by Cox regression, adjusted for confounders.

**Results** 383 SLE patients were studied (age 40.5±13 years; 94% women). Patients with osteoporosis/fracture at baseline (n=113) were more likely to have childhood onset disease (<18 years), longer SLE duration and higher prevalence of hematological or neuropsychiatric manifestations than those without. Use of glucocorticoids (GCs) and MMF/AZA, BMI≤18kg/m2, premature menopause (<45 years) were also more frequent in the osteoporosis/fracture group. However, no difference in the SLEDAI scores was observed. Over 153±41 months, new symptomatic fragility fractures developed in 34(8.9%) patients (vertebral [n=19], hip [n=2], limbs (non-hip) [n=6], digital/rib [n=7]; incidence 0.69 per 100 patient-years). The cumulative risk of fragility fractures was not significantly different.