Nevertheless, these scores have showed low to moderate correlation with DXA in RD patients(3).

Objectives: To evaluate the fracture risk in RD patients, using different versions of FRAX scores without a bone mineral density (BMD) measure.

Methods: An observational prospective study was performed at the Rheumatology Clinic in the University Hospital "Dr. Jose Eleuterio Gonzalez" in Monterrey, Mexico, between August and October 2020. Consecutive patients with a RD were evaluated as part of a "Bone Health Program"(3). Demographics and the risk factors included in FRAX tool was collected from ≥40 years-old patients; FRAX score was calculated online at <https://www.sheffield.ac.uk/FRAX/> (algorithm for Mexicans). Four versions were calculated: 1) FRAX score without (w/o) BMD; 2) FRAX score with a T-score of -1.0 (w/Op); 3) FRAX score with a T-score of -2.5 (w/OP) and a FRAX score with positive previous fracture (Fx+). Then were classified as low (<10% for OP or <1% for hip), intermediate (10%-19% for OP or 1%-<3% for hip) and high risk (≥20% for OP or ≥3% for hip). Results are shown in means (SD) or frequency (%). A chi-square test was used to compare groups. Spearman's correlation test (rho) was done between OP risk and Hip risk in each version of FRAX. P<0.05 was considered statistically significant.

Results: One hundred and three patients were included, 93.2% were woman. The most frequent diagnosis was RA in 51.5% of patients, followed by osteoarthritis in 7.8%. 62.1% of patients had a previous BMD measured by DXA. 21.4% had history of previous fracture. 61.2% of patients were taking glucocorticoids. (Table 1). According to FRAX risk w/o BMD, 82 (79.6%) had low risk, 13 (12.6%) had intermediate risk, and 8 (7.8%) had high risk for OP. According to FRAX risk w/o BMD, 59 (57.3%) had low risk, 24 (23.3%) had intermediate risk, and 20 (19.4%) had high risk for hip fracture (Table 2). The correlations between OP risk and Hip risk in each version were as follow: FRAX w/o BMD (rho= .734, P= <.001) FRAX w/Op (rho= .308, P= .002); FRAX w/OP (rho= .476, P= <.001); FRAX with Fx+ (rho= .634, P= <.001).

Conclusion: There is a wide variability among the different FRAX risk scores evaluated, and moderate to high correlation between the OP and Hip risk in patients with RD.

REFERENCES:

- [1] Ann Intern Med. 2017;166(11):818-839. doi:10.7326/M15-1361
- [2] Arthritis Rheumatol. 2019;71(suppl 10):3924-3925
- [3] Ann Rheum Dis. 2020;79:1190-1191

Table 1. FRAX score risk factors

	N= 103	95% C.I.
Age, years, mean (SD)	57.0 (9.56)	55.1 – 58.9
Female, n (%)	96 (93.2)	86.4 – 96.9
Weight, kg, mean (SD)	68.2 (14.88)	65.3 – 71.2
Height, cm, mean (SD)	154.6 (6.73)	153.3 – 155.9
Previous Fracture, n (%)	22 (21.4)	14.5 – 30.3
Parent Fractured Hip, n (%)	12 (11.7)	6.7 – 19.4
Current Smoking, n (%)	12 (11.7)	6.7 – 19.4
Glucocorticoids, n (%)	63 (61.2)	51.5 – 70.0
Rheumatoid arthritis, n (%)	53 (51.5)	41.9 – 60.9
Secondary osteoporosis, n (%)	1 (1.0)	0.0 – 5.8
Alcohol use, n (%)	1 (1.0)	0.0 – 5.8
Previous DXA, n (%)	64 (62.1)	52.5 – 70.9

Table 2. Fracture risk according different FRAX score versions

	Low risk (<10% for OP or <1% for hip)	Intermediate (10%-19% for OP or 1%- <3% for hip)	High risk (≥20% for OP or ≥3% for hip)	P
FRAX risk w/o BMD, n (%)				
Osteoporosis	82 (79.6)	13 (12.6)	8 (7.8)	<.001
Hip	59 (57.3)	24 (23.3)	20 (19.4)	
FRAX risk w/Op, n(%)				
Osteoporosis	101 (98.1)	2 (1.9)	-	<.001
Hip	98 (95.1)	4 (3.9)	1 (1.0)	
FRAX risk w/OP, n(%)				
Osteoporosis	96 (93.2)	4 (3.9)	3 (2.9)	<.001
Hip	10 (9.7)	80 (77.7)	13 (12.9)	
FRAX risk with Fx+, n(%)				
Osteoporosis	86 (83.5)	13 (12.6)	4 (3.9)	<.001
Hip	49 (47.6)	38 (36.9)	16 (15.5)	

Disclosure of Interests: None declared.

DOI: 10.1136/annrheumdis-2021-eular.4144

AB0625

ARE TUNISIAN WOMEN PRONE TO VERTEBRAL FRACTURES AT A YOUNGER AGE?

C. Daldou¹, N. El Amri¹, S. Laataoui¹, K. Baccouche¹, H. Zegaloui¹, E. Bouajina¹. ¹Farhat Hached Hospital, Rheumatology, Sousse, Tunisia

Background: There is an evident increased risk of vertebral fractures (VF) related to ageing. This is due to alterations in trabecular microarchitecture and a decrease in cortical thickness. The International Society of Clinical Densitometry (ISCD) recommend an age threshold of 70 years for VF screening in women. However, a large proportion of VF occurs below this threshold. In Tunisia, there was no previous study evaluating the association between age and VF.

Objectives: The aim of this study was to evaluate the relationship between age and prevalent VF in Tunisian women.

Methods: We conducted a cross-sectional study over a period of 5 months at the rheumatology department. The study included post-menopausal women without a previous diagnosis of VF referred for BMD measurement. Each participant had an extensive medical history investigation, a BMD assessment and a VFA scan to detect prevalent VF using dual energy X absorptiometry DeXa. VF were identified according the Genant semi-quantitative method and grade 1 VF were ruled out. We used the WHO criteria for the diagnosis of osteoporosis and osteopenia. For age, the results were expressed as means with standard deviations (SD) and extreme values and then analyzed with two-tailed Student t test. The receiver operating characteristics curve (ROC) determined cut-offs for age. Statistical significance was set at 5%.

Results: Two hundred and ten women were included in this study. The mean age of our patients was 61.51±8.49 with extremes ranging from 40 to 81 years. The distribution of our patients in 10 years age groups showed that: 9% were aged between 40 and 50 years, 34.3% were aged between 50 and 60 years, 38.6% were aged between 60 and 70 years, 17.1% were aged between 70 and 80 years and 1% were aged above 80 years. The mean BMI was 31.04±5.52 kg/m². Thirty-seven percent of our participants had at least one fragility fracture and a severe fragility fracture was recorded in 10.5%. An early menopause was found in 19.5% of our women. Twenty percent of our population were receiving corticosteroids. The mean vertebral and total hip BMD was 0.955±0.165 g/cm² and 0.850±0.135 g/cm² respectively. Osteoporosis and low BMD were found in respectively 50% and 34.28%. The mean age in the VF group was significantly higher compared to the non-VF group (64.37 years vs. 60.50 years, p=0.003). The ROC curve identified an age cut-off of 60 years for VF. Age above 60 years was significantly associated with VF (65.5% vs. 43.9%, p=0.006) with an unadjusted risk of 5.42 (95%CI [1.278-4.597]). Among women with VF, 74.5% (41 women) were aged under 70 years which is the threshold proposed by the ISCD for VF screening. Among women aged under 70 years and having at least one VF (41 women), 6 women (14.63%) had an indication for VF screening as they reported a historical height loss of 4 cm and 8 women (19.51%) had an indication for VF screening as they were receiving corticosteroids. Hence, 27women (65.85%) had at least one VF and no indication for VF screening according to the ISCD.

Conclusion: Tunisian women over 60 years were at higher risk of VF. Applying the ISCD criteria for VF screening would miss 65.85% of women with VF. Those findings highlight the particularity of this population experiencing osteoporotic VF at an early age.

Disclosure of Interests: None declared.

DOI: 10.1136/annrheumdis-2021-eular.4201

AB0626

THE CHARACTERISTICS AND TREATMENT OF PATIENTS ADMITTED WITH FRAGILITY FRACTURE OF THE HIP

H. Baharuddin^{1,2}, R. Nasadurai², S. S. Ch'ng², Y. Z. Cheng², D. R. Ramakrishna Rao², P. A. Megat Mohamad Zainuddin², S. Sabir Husin Athar³, M. Mohd Zain². ¹Universiti Teknologi MARA, Department of Internal Medicine, Sungai Buloh, Malaysia; ²Selayang Hospital, Department of Medicine, Batu Caves, Malaysia; ³Selayang Hospital, Department of Orthopaedics, Batu Caves, Malaysia

Background: Hip fractures are associated with significant morbidity, mortality, loss of independence and financial burden.¹ There is a positive influence of calcium and vitamin D supplementation on the fracture-healing outcome.²