± 237 and 570 ± 217 mU/dL ($p=0.674$); LS-BMD 0.85 ± 0.16 and 0.74 ± 0.13 g/cm² ($p<0.001$) and TH-BMD 0.62 ± 0.09 and 0.60 ± 0.08 g/cm² ($p=0.110$). The rate of decreased P1NP from baseline to 6, 12 and 24 months were each -43.7% vs -61.3% ($p=0.015$) at 6 month, -40.2% vs -55.2% ($p<0.001$) at 12 month and -43.5% vs -67.9% ($p<0.001$) at 24 month and TRAC-5b were -44.6% vs -51.5% ($p=0.225$) at 6 month, -39.5% vs -53.0% ($p=0.007$) at 12 month and -41.3% vs -54.2% ($p=0.663$) at 24 month in the RA-OP vs P-OP group. The rate of increased LS-BMD from baseline to 6, 12 and 24 months were each 4.3% vs 4.5% ($p=0.743$) at 6 month, 6.3% vs 6.9% ($p=0.575$) at 12 month and 9.3% vs 11.1% ($p=0.300$) at 24 month and TH-BMD were 2.5% vs 2.6% ($p=0.583$) at 6 month, 3.3% vs 3.2% ($p=0.683$) at 12 month and 5.7% vs 4.2% ($p=0.403$) at 24 month RA-OP vs P-OP group.

Conclusion: DMB was effective for both RA-OP and P-OP, and the clinical efficacy was almost similar between the two groups.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.6952

FRI0494

CORRELATION OF METACARPAL BONE MASS MEASURED EITHER BY DUAL X-RAY DENSITOMETRY OR DIGITAL X-RAY RADIOGRAMMETRY WITH SEVERITY OUTCOMES IN PATIENTS WITH EARLY ARTHRITIS

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Background: Rheumatoid arthritis (RA) is a systemic autoimmune disorder that predominantly affects small joints of the hands and feet. X-ray digital radiogrammetry (DXR) is a validated technique for the evaluation of bone mineral density (BMD) in the diaphysis of metacarpals (MC) that has demonstrated that low bone mass at this location correlates with worse radiographic progression (1). However, this technique is not available in our environment. Dual X-ray densitometry (DXA) is a simple, accessible and widely validated technique for the study of osteoporosis. Our group has previously validated the reproducibility of MCP measurements by DXA (2).

Objectives: To study the relationship between baseline MC BMD measured by DXA or DXR and disease severity in patients with early arthritis at 2 years follow-up.

Methods: 202 patients belonging to PEARL (Princess Early Arthritis register longitudinal) study were included. Demographic, laboratory, radiographic and therapeutic data were recorded by protocol. Most patients (87%) were women, 59% fulfilled 2010 ACR criteria and 41% were classified as undifferentiated arthritis. More than 60% were seropositive (60% RF; 58% anti-CCP). Median disease duration at first visit was 4.6 months, median DAS28 4.2 and HAQ 0.875. The BMD of 2th to 4th MC was measured by DXR through the standardized software by Sectra (Linköping, Sweden) applied on radiographs of hands submitted in digital format (GE® DX Definium 8000). Baseline non-dominant hand DXA was performed using a densitometer Hologic® QDR4500. To analyze 2th to 4th MC BMD, we created 3 regions of interest (ROI) similar to that generated in the DXR measurements; briefly, the ROIs cover the mid-third of each MC diaphysis, avoiding overlapping of ROIs. The statistical study was performed with Stata 12 for Windows, including linear correlation between MC-BMD values measured by DXR and DXA (Pearson's test), and different multivariate analyses in which MC-BMD measured either by DXR or DXA were included as dependent variable and sex, age and body mass index (BMI) as independent confounding variables. Then in these models different subrogate variables of disease severity such as disease activity (DAS28), disability (HAQ) or cumulative DMARD treatment after 2 years of follow-up were included in order to determine whether there was an association with MC-BMD.

Results: The MC-BMD measured by DXA and DXR at baseline showed a good correlation ($r=0.87$, $p<0.001$). As expected, being female (β coefficient -0.0381, $p=0.0001$) and age > 65 years (β coefficient -0.076, $p=0.0001$) were associated with lower BMD, whereas high body mass index (β coefficient $0.002 \times \text{kg/m}^2$, $p=0.004$) was associated with higher BMD. Adjusting by this confounding variables, the multivariate analyses did not show any significant association between MC-BMD and DAS28, HAQ or treatment intensity, neither with the DXA or DXR measurements.

Conclusion: Despite of the good correlation between DXR and DXA, our data obtained either with DXA or DXR do not confirm the association of low MC-BMD measured with DXR and more aggressive disease in patients with early arthritis.

REFERENCES:

- [1] Forslind K, Boonen A, Albertsson K, et al. Scand J Rheumatol 2009;38:431-438.
- [2] Castañeda S, González-Álvarez I, Rodríguez-Salvanes F, et al. J Clin Densitom 2007;10:298-305.

Acknowledgement: We would like to thank Teresa Velasco, nurse of the Rheumatology Division, for her invaluable help in the Early Arthritis Clinic

Disclosure of Interests: Irene Llorente : None declared, Saturnino Gonzalez: None declared, Eugenio Escolano: None declared, Ana Maria Ortiz: None declared, Alberto García-Vadillo: None declared, Isidoro González-Álvarez: None declared, Santos Castañeda Consultant for: Amgen, BMS, Pfizer, Lilly, MSD, Roche, Sanofi, UCB

DOI: 10.1136/annrheumdis-2019-eular.6271

FRI0495

FRAGILITY FRACTURE IN MALE; EXPERIENCE OF A FRACTURE LIAISON SERVICE

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Background: Secondary prevention of osteoporotic fracture is more efficient with the Fracture Liaison Service (FLS) model.

Objectives: To describe the characteristics of male patients attended in a FLS

Methods: Prospective observational study. The program consists of: 1) recruitment from the emergency records, hip fracture admitted or referral to outpatient rheumatology; 3) baseline visit: questionnaire including demographic variables, FRAX and previous treatments; 4) DXA; 5) patient education; 6) report of results to the patient and the PC doctor, with specific management recommendations; complex patients are referred to rheumatology; and 7) follow-up through telephone survey plus prescription check in electronic records. The characteristics of male patients are described and compared with women.

Results: 2,135 patients have been included, 382 male (18%). The recruitment was in 300 cases (78%) from the emergency list, in 55 cases (14%) admission for hip fracture and in 25 cases (6%) from outpatient clinic. The characteristics of the patients are shown in the table.

The average age was similar in men and women. Hip fracture was more frequent in men (34% vs. 25%, OR 1.63 CI 95% 1.50-1.75) as opposed to forearm fracture (18% vs. 33%, OR 0.46 CI 95% 0.32-0.60). Male had previous DXA (6% vs 25%, OR 0.22 CI 95% 0.00-0.43) and previous treatment with bisphosphonate (4% vs 19%, OR 0.17 CI 95% 0, 0-0.44) less frequently.

Of the variables included in the FRAX, in men was less frequent the previous fracture (13% vs 24%, OR 0.48 CI 95% 0.32-0.64), the hip fracture of the parents (9% vs. 13%; OR 0.66 CI 95% 0.47-0.85) and the use of corticoids (6% vs 10%, OR 0.61 CI 95% 0.39-0.84). However, active smoking was more frequent in men (21% vs 14%, OR 1.67 CI 95% 1.53-1.81) as well as consumption >2 daily units of alcohol (18% vs 5%; OR 3.96 CI 95% 3.78-4.13).

The percentage of osteoporosis was lower in men compared to women (30% vs 46%, OR 0.49 CI 95% 0.30-0.68) as well as the percentage of patients with >1 fall in the last year (29% vs 45%, OR 0.51 CI 95% 0.30-0.71).

In addition, after the visit to the FLS, a bisphosphonate was indicated less frequently to men than to women (68% vs. 77%, OR 0.64 CI 95% 0.51-0.76) and were referred less frequently to PC (64% vs. 76%; OR 0.55 95% CI 0.41-0.70). Finally, persistence at 12 months was lower in men than in women (53% vs. 68%, OR 0.53 CI 95% 0.30-0.76).

Conclusion: Compared with women, men seen in an FLS present hip fracture more frequently and a forearm fracture less frequently. Men also have a lower frequency of personal and family history of fracture and a greater frequency of smoking and alcohol intake. The percentage of patients who are candidates for treatment and persistence is lower than in women. These data should be taken into account in the identification and treatment of fragility fracture in men.

Acknowledgement: Fabiola Santana and Carmen Alonso

Disclosure of Interests: Antonio Naranjo Grant/research support from: Amgen, Consultant for: UCB, Speakers bureau: Amgen, UCB, Soledad Ojeda Grant/research support from: AMGEN, Speakers bureau: AMGEN, Aida Saavedra: None declared, Cristina Sepúlveda: None declared, Francisco Rubiño: None declared, Amparo Molina Speakers bureau: AMGEN, Olga Suárez: None declared, Casimira Domínguez: None declared, José