AB0801

TIME FOR REFERRAL AND DEFINITIVE DIAGNOSIS IN PATIENTS WITH HAND ARTHRALGIA

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Background: Early referral of patients with suspicion of progression to rheumatoid arthritis (RA) is of paramount importance in disease prognosis. We had previously described a time delay of 28 months between symptom onset and evaluation by a rheumatologist, and a mean wait time of 9.5 weeks for referral to a secondary-level public hospital (1). The availability of specialized interdisciplinary evaluation of patients in a third-level of care raises the possibility of shortening this time gap, as well as describing patient and physician decisions amidst the referral to a Rheumatology center.

Objectives: Describe the diagnosis profile of patients with hand arthralgia and time of referral to Rheumatology in a Family Medicine clinic.

Methods: A cohort study was conducted in 110 patients from October 2018 to December 2020 in a Family Medicine clinic within the tertiary-care University Hospital "Dr. Jose Eleuterio Gonzalez" in Monterrey, Mexico. Patients with hand arthralgia as their chief complaint were recruited. An observational, descriptive compilation of patient history was retrieved prospectively through medical records. Variables included time of inclusion, number of medical visits until referral and definitive diagnosis. Descriptive statistics, Kaplan-Meier curves and log-rank tests were used to test the association between time of diagnosis and clinical variables of interest.

Results: Assessed variables are shown in Table 1. Out of 110 patients with hand arthralgia, a quarter received a final diagnosis within 3 medical visits. Less than half of patients were referred, and only a third attended the referral indication. It takes 39.3 days from the first medical visit to be referred, and 69 days and 2.89 consultations to receive a definitive diagnosis. Around half of patients will have a definitive diagnosis, osteoarthritis being the most common. The log-rank test for categoric variables including a positive squeeze test or ≥4 criteria of clinically suspect arthralgia did not show a significant association for time of referral and definitive diagnosis (data not shown).

Table 1. Diagnostic and referral characteristics of patients with hand arthralgia attending a Family medicine clinic

Patients recruited in a Family Medicine clinic	n = 110
Female, n (%)	90 (81.8)
Age in years, mean ± SD	49.69 ± 14.90
RF, ACPA, or hand radiography request, n (%)	100 (90.9)
Diagnosis in Family Medicine	
Diagnosed patients after 1 medical visit, cumulative n (%)	5 (4.6)
Diagnosed patients after 2 medical visits, cumulative n (%)	22 (20.0)
Diagnosed patients after 3 medical visits, cumulative n (%)	26 (23.6)
Referral to Rheumatology for diagnostic doubt or clinical follow-up	
Patients referred to a Rheumatology clinic, n (%)	49 (44.5)
Patients attending Rheumatology referral, n (%)	34 (30.9)
Time for referral, days ± SD	39.37 ± 38.64
Global definitive diagnosis	
Patients with a definitive diagnosis, n (%)	51 (46.4)
Osteoarthritis diagnosis, n (%)	23 (20.9)
Rheumatoid arthritis diagnosis, n (%)	13 (11.8)
Overlap syndrome diagnosis, n (%)	5 (4.5)
Time for definitive diagnosis, days ± SD	68.96 ± 106.57
Number of consultations for definitive diagnosis, mean ± SD	2.86 ± 1.05

RF, rheumatoid factor; ACPA, anticitrullinated protein antibodies; SD, standard deviation.

Conclusion: Patients with hand arthralgia evaluated in a tertiary-care Rheumatology center receive a timely referral in one month and a definitive diagnosis after 3 medical visits in around two months.

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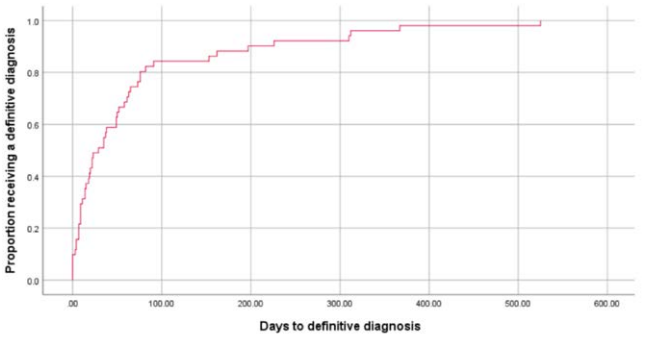
Graphs:



Graph 1. Kaplan-Meier curve of time to definitive diagnosis in patients with hand arthralgia as their chief complaint in a Family Medicine clinic.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.4095

AB0802

THE CORRELATION BETWEEN N-MID OSTEOCALCIN SERUM VALUES AND BONE MINERAL DENSITY VALUES IN FEMALE SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS WHO RECEIVED ORAL METHYLPREDNISOLONE THERAPY BASED ON CUMULATIVE DOSES

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Background: Systemic Lupus Erythematosus (SLE) is a complex autoimmune disease and involves many organ systems in the body. Glucocorticoids are potent anti-inflammatory and immunosuppressive agents used in patients with SLE. The cumulative dose of steroids is a major risk factor for bone loss. A sensitive indicator that reflects bone remodeling activity is a bone turnover marker (BTM), one of which is N-MID Osteocalcin. Bone Mineral Density (BMD) with DXA can be used to assess osteoporosis. DXA is thus not feasible for screening because of its high cost and lack of machine availability. N-MID Osteocalcin is cheaper and more accessible than DXA. The majority of SLE patients at Moewardi Hospital, Surakarta, received the main therapy for methylprednisolone.

Objectives: This study aims to prove the correlation between serum N-MID Osteocalcin values and BMD values in female SLE patients who received oral methylprednisolone therapy based on cumulative doses.

Methods: This is a cross-sectional study with random sampling techniques at Rheumatology Clinic Moewardi Hospital, Surakarta. The 38 samples that met the inclusion criteria were measured BMD by DXA and examined for N-MID Osteocalcin by using the Elecsys N-Mid Osteocalcin Kit with the ECLIA method. The cumulative dose of methylprednisolone is calculated in grams. Data analysis used the Shapiro Wilk test, 2 mean difference test (t-test and Mann Whitney test), Chi-Square test, bivariate correlation analysis and, Moderated Regression Analysis.

Results: There were 38 samples, 34 (89.47%) normal BMD and, 4 (10.53%) Osteoporosis. The N-MID Osteocalcin has a positive and significant correlation both with the BMD Total L1-L4 as well as the BMD NLF ($p < 0.05$). The cumulative dose of MP has a negative and significant correlation both with the BMD Total L1-L4 also with the BMD NLF ($p < 0.05$). MP cumulative dose can significantly function as a moderation of the effect of N-MID Osteocalcin both on the BMD Total L1-L4 or the BMD NLF. The effect of the N-MID Osteocalcin on the total BMD of L1-L4 or the BMD NLF at the Cumulative Dose MP ≥ 8 g was weaker than that of the MP Cumulative Dose <8 g, and the moderating effect of the correlation between N-MID Osteocalcin and BMD was larger on the total BMD of L1-L4.

Conclusion: There is a positive correlation between serum N-MID Osteocalcin values and BMD values in SLE female patients receiving oral methylprednisolone therapy and the cumulative dose of Methylprednisolone affects the correlation between N-MID Osteocalcin values and BMD values in SLE female patients receiving oral methylprednisolone therapy.

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