

AB1229

### ASSESSMENT OF ENTHESITIS BY ULTRASONOGRAPHY IN PATIENTS WITH SERONEGATIVE RHEUMATOID ARTHRITIS

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**Background:** In patients with seronegative rheumatoid arthritis (RA) there is a difficulty to make the differential diagnosis with the spondyloarthropathies.

**Objectives:** To assess the presence of enthesitis in patients with seronegative RA in comparison with the healthy controls (HC), patients with seropositive RA and ankylosing spondylitis (AS).

**Methods:** In this cross-sectional study, seronegative and seropositive RA patients, who fulfilled the 2010 ACR/EULAR criteria, patients with AS and HC have been assessed by grey scale and power doppler ultrasonography for the presence of enthesopathy at the achilles tendon, plantar fascia, proximal patella, distal patella, quadriceps, tibialis anterior, triceps, common flexor and extensor tendons. Clinical assessment of the patient groups included demographic findings, health assessment questionnaire and DAS28.

**Results:** In our study, we recruited age and sex matched 27 seronegative RA, 19 healthy controls, 24 seropositive RA and 23 ankylosing spondylitis patients. We evaluated and analysed both right and left sides of the entheses regions separately which have been indicated in the methods section. The mean DAS28, mean ESR and mean CRP of the patients with seronegative RA were 3.6±1.28, 32.2±21.2 and 12.37±27.77 respectively (table 1).

Median of Madrid sonographic enthesitis index (MASEI) was 5 in patients with seronegative RA. 4 patients have severe scores (MASEI score ≥20). There were significant differences between seronegative RA and healthy controls (MASEI score:3), (p=0.014) but no differences has been observed between seronegative RA with seropositive RA (MASEI score:6) and ankylosing spondylitis (MASEI score:7) in MASEI scores.

In comparison, hypoechoogenicity of quadriceps tendon (16 (29.6%) vs 6 (12.5%), p=0.037), bone erosion at the quadriceps tendon attachment (9 (16.6%) vs 0, p=0.003), calcification at achilles tendon (17 (31.4%) vs 6 (12.5%), p=0.023) have been observed more frequently in patients with seronegative RA than seropositive RA. Significantly higher number of patients with bone erosion at the common extensor tendon (26 (48.1%) vs 3 (6.5%), p<0.001), calcification at achilles tendon (17 (31.4%) vs 2 (4.3%), p=0.024), erosion at triceps tendon (13 (24%) vs 1 (2.1%), p=0.035) have been detected in patients with ankylosing spondylitis than seronegative RA (table 2).

Abstract AB1229 – Table 1

|                       | Seronegative RA | Healthy control group | Seropositive RA | Ankylosing spondylitis |
|-----------------------|-----------------|-----------------------|-----------------|------------------------|
| Age, years            | 51,85±11,49     | 46,2±6,6              | 53,12±10,95     | 43,75±4,1              |
| Women, n (%)          | 48 (88,9)       | 38 (100)              | 44 (91,7)       | 38 (82,6)              |
| RA duration, year     | 9,8±6,75        | NA                    | 12,29±9,3       | NA                     |
| RF titre, median      | 10,77±3,21      | NA                    | 323,68          | NA                     |
| AntiCCP titre, median | 3,99±4,13       | NA                    | 300,16          | NA                     |
|                       |                 |                       | ±264,93         |                        |
| DAS28, median         | 3,6±1,28        | NA                    | 3,73±1,45       | NA                     |
| ESR, median           | 32,2±21,2       | NA                    | 38,73±26,88     | 38,72±9,16             |
| CRP, median           | 12,37±27,77     | NA                    | 12,73±18,57     | 10,38±9,3              |

Abstract AB1229 – Table 2. Assessing patients with seronegative rheumatoid arthritis about enthesopathy by ultrasound- Pathological findings

| Pathological finding                             | Seronegative RA | Healthy control group | Seropositive RA     | Ankylosing spondylitis |
|--|-----------------|-----------------------|---------------------|------------------------|
| Bone erosion at the quadriceps tendon, n(%)      | 9 (16,6)        | 0 (p<0,006)           | 0 (p<0,003)         | 3 (6,5) (p<0,25)       |
| Hypoechoogenicity in quadriceps tendon, n(%)     | 16 (29,6)       | 2 (5,8) (p<0,006)     | 6 (12,5) (p<0,037)  | 2 (4,3) (p<0,12)       |
| Calcification at achilles tendon, n(%)           | 17 (31,4)       | 0 (p<0,003)           | 6 (12,5) (p<0,023)  | 8 (17,3) (p<0,236)     |
| Bone erosion at the common extensor tendon, n(%) | 26 (48,1)       | 0 (p<0,045)           | 2 (4,3) (p<0,296)   | 3 (6,5) (p<0,001)      |
| Calcification of achilles tendon, n(%)           | 17 (31,4)       | 3 (8,5) (p<0,014)     | 6 (12,5) (p<0,086)  | 2 (4,3) (p<0,024)      |
| Erosion at triceps tendon, n(%)                  | 13 (24)         | 0 (p<0,005)           | 9 (18,75) (p<0,004) | 1 (2,1) (p<0,035)      |

**Conclusions:** We observed that enthesitis involvement was not seldom in patients with seronegative RA. Furthermore there were also similar frequency of entesis involvement in seropositive patients with RA. The value of enthesitis sites evaluation for the differential diagnosis of patients with seronegative RA should be further investigated and the assessment of enthesitis sites in seronegative and seropositive RA patients can be important to detect active and chronic changes at the enthesitis region.

**Disclosure of Interest:** None declared  
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### Public health, health services research and health economics

AB1230

### PATIENT EMPOWERMENT THROUGH THE USE OF A MOBILE PHONE APPLICATION: THE EXPERIENCE OF RHEUMABUDDY IN ITALY

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**Background:** Patient education and empowerment are cornerstones in the management of rheumatic and musculoskeletal diseases (RMDs). In fact, they improve the physician-patient relationship and ensure a successful shared decision making process. In recent years, the exponential growth of interactive media and the progress of technology led to the parallel development of digital health-care and the evaluation of how tools like mobile applications (app) can contribute to patient empowerment. Rheumabuddy has been developed thanks to the collaboration of the Danish association of young patients with RMDs (FNUG) and a Danish agency specialised in digital healthcare (Daman). RheumaBuddy is designed for young patients (18–35 years old) with chronic arthritis and integrates the function of a diary to monitor the main features of the disease (e.g. pain, stiffness, fatigue) and a forum to interact with other users and provide mutual help.

**Objectives:** We aimed at developing the Italian version of RheumaBuddy to make it available to Italian patients with RMDs.

**Methods:** The Italian Society of Rheumatology Committee for young rheumatologists (SIRyoung) translated the content of the app from English to Italian adapting when needed because of language incompatibility.

**Results:** The Italian version of RheumaBuddy was launched on the 12th October 2017 (World Arthritis Day) in partnership with national patient associations (ANMAR and APMAR). The app was also presented via a press release from the Italian Society of Rheumatology. To date, RheumaBuddy was downloaded by 1182 users with 822 of them currently using the app on a regular basis. The feedback collected so far highlighted the usefulness of the app and pointed out potential weaknesses and issues to be tailored to the Italian population. The gathering of feedback from users is still ongoing.

**Conclusions:** We developed the Italian version of RheumaBuddy, which is currently used by a consistent number of young patients with chronic arthritis. A board including patient representatives, rheumatologists and the app developers will be established to specifically tailor the app according to the needs and priority of Italian users and based on the feedback collected.

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### EFFICACY AND COST ANALYSIS OF A SYSTEMATIC SWITCH FROM ORIGINATOR INFLIXIMAB TO BIOSIMILAR CT-P13 OF ALL PATIENTS WITH INFLAMMATORY ARTHRITIS FROM A SINGLE CENTRE

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**Objectives:** The aim of this study was to analyse efficacy, safety and cost savings of switching from infliximab originator (IFXor) to the biosimilar (BS) CT-P13 in single centre.

**Methods:** Eligible patients were those older than 18 years old with the diagnosis of rheumatoid arthritis (RA), spondylarthritis (SpA) and psoriatic arthritis (PsA) on treatment (Tx) with IFXor for at least 6 months and with stable disease activity. In December 2016 all eligible patients were proposed to switch to CT-P13. At the day of the last Tx with IFXor, informed consent, data and blood samples were collected. On the next Tx day, CT-P13 was administered after standard evaluation of efficacy and safety. Efficacy was measured considering change from baseline in Disease Activity Score in 28 joints (DAS28) for RA and PsA and in Ankylosing Spondylitis Disease Activity Score (ASDAS) for SpA. Disease worsening was