

# 2378 Prevalence of Subclinical Synovitis Detected By Ultrasound in Rheumatoid Arthritis and Psoriatic Arthritis Patients Receiving Anti-TNF- $\alpha$ Therapy with Extended Interval of Administration

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## PURPOSE

To estimate the prevalence of subclinical synovitis detected by ultrasound in rheumatoid arthritis (RA) and psoriatic arthritis (PsA) patients in clinical remission receiving anti-TNF $\alpha$  therapy with extended interval of administration (EIA)

## METHODS

- Type of study: Prospective observational
- Population: Patients diagnosed with RA and PsA, being in clinical remission and receiving anti-TNF $\alpha$  therapy with extended interval of administration
- Ultrasound equipment: Esaote MyLab 25 Gold (Esaote s.p.a, Firenze, Italy)
- Ultrasound assessment: 12-joint (elbows, wrists, 2nd and 3rd metacarpo-phalangeal, knees and ankles) (Naredo E. Arthritis Rheum 2008;59:515-22) evaluating synovitis through B-mode (BM) and Color Doppler signal (CD), both by semiquantitative scale from 0 to 3 points. Subsequently, a BM and CD score was calculated, summing the highest score obtained from any one of the synovial sites evaluated at each joint to a maximum of 36 points. The sonographer was blinded to the clinical and laboratory data

## RESULTS

Basal characteristics of patients are shown in Table 1. Clinical activity and ultrasound scores are summarized in Table 2. Ultrasound detected some synovitis by CD in 50% of EIA patients, and by BM in 96% of EIA patients. Nevertheless most of them had a low CD score (average 1.42 out of 36 points). No statistically significant differences were found when comparing prior and after EIA clinical and ultrasound scores (data not shown). The mean time from the beginning of EIA was 15 months (range 1 to 48 months). The EIA treatments were etanercept (ETN) in 14 patients and adalimumab (ADA) in 12 patients, with the following patterns: ETN/10 days (11 pat.), ETN/14 days (3 pat.), ADA/18 days (1 pat.), ADA/21 days (10 pat.), ADA/30 days (1 pat.). 10 patients (not included in the study) never began EIA due to clinical decision, and 7 (27%) had to return to the standard administration pattern because worsening of disease activity

**Table 1. Basal characteristics of patients**

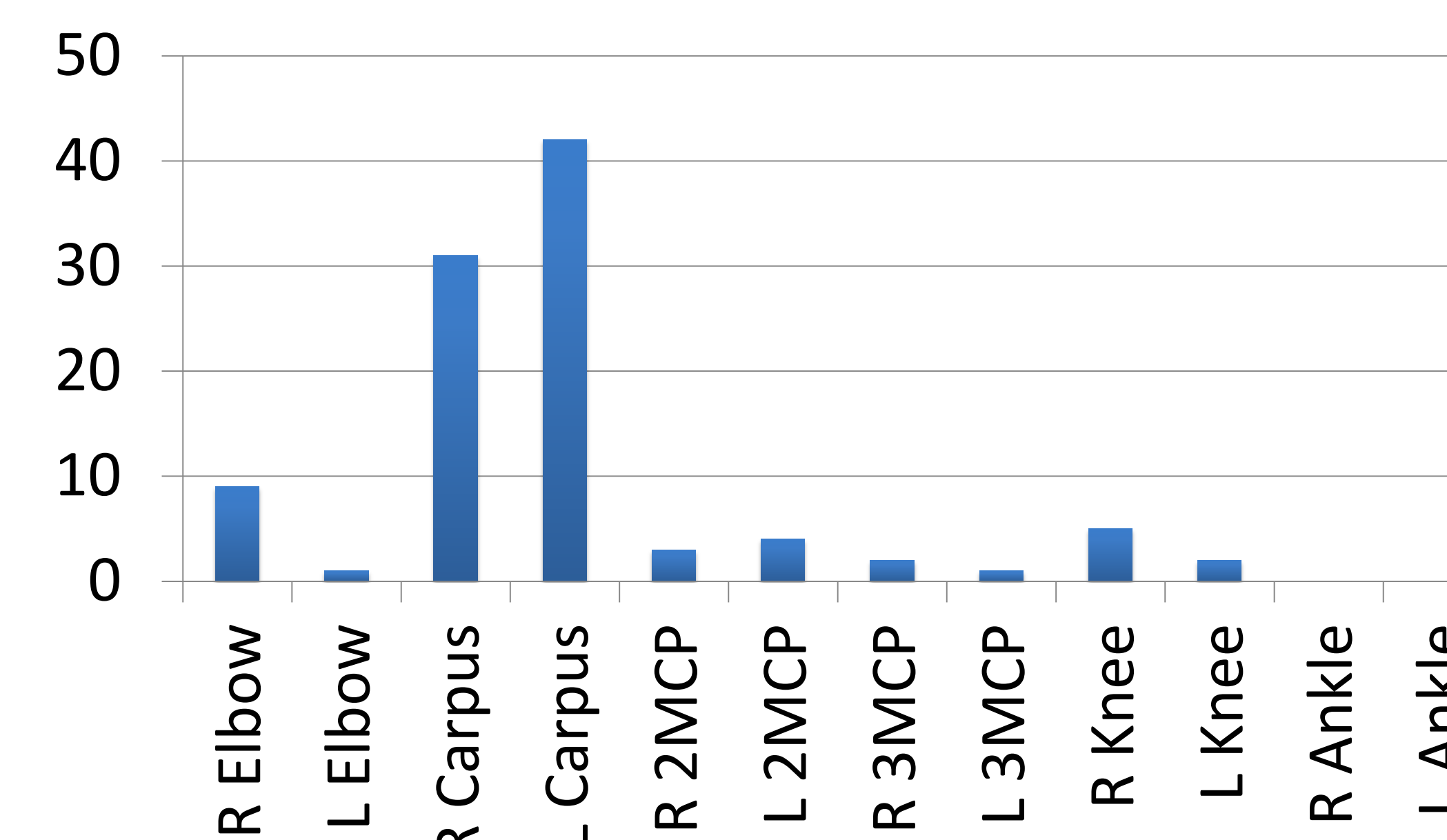
• Nº patients:	26
- Etanercept:	14
- Adalimumab:	12
• Women (%)	76.9
• Age, mean [range], years	59 [31-79]
• Duration of disease mean [range], years	14 [3-46]
• Diagnosis:	
- PsA: 2 patients:	7%
- RA: 24 patients	92%
• FR /anti-CCP positive (RA):	83% / 79%

**Table 2. Clinical activity and ultrasound scores**

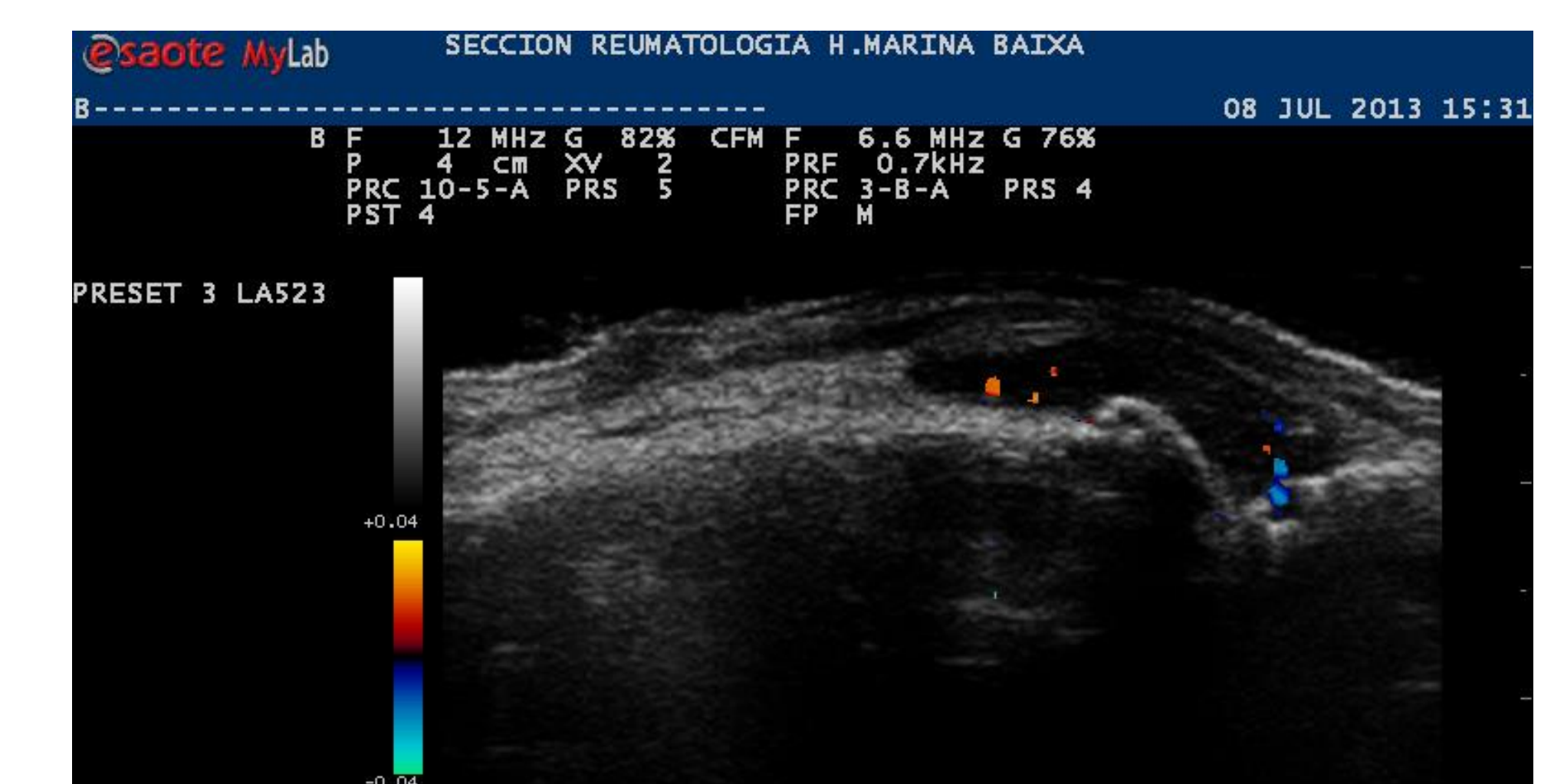
	Prior to EIA	After EIA
n	17	26
<b>DAS28-ESR</b> , mean [range]	1.55 [0.63–2.64]	1.74 [0.51–4.06]
<b>DAS28-CRP</b> , mean [range]	1.69 [1.13–2.89]	1.75 [1.13–3.38]
<b>SDAI</b> , mean [range]	3.58 [2.10–10.10]	4.05 [2.10–16.1]
<b>CDAI</b> , mean [range]	3.35 [2–10]	3.92 [2–16]
<b>Color Doppler score &gt;0</b> , n (%)	12 (70.6%)	13 (50.0%)
<b>Color Doppler score</b> , mean [range]	1.06 [0–3]	1.42 [0–5]
<b>B-mode SH score &gt;0</b> , n (%)	14 (82.4%)	25 (96.2%)
<b>B-mode SH score</b> , mean [range]	4.18 [0–19]	4.46 [0–17]

**EIA:** Extended interval of administration of anti-TNF $\alpha$ ; **DAS28:** Disease Activity Score in 28 joints; **SDAI:** Simplified Disease Activity Index; **CDAI:** Clinical Disease Activity Index; **SH:** synovial hypertrophy

**Figure 1. Total Color Doppler score per joint**



**Figure 2. Metacarpophalangeal joint ultrasound**



Example of ultrasound of 2nd metacarpophalangeal joint. Color Doppler score: 1; B-mode score: 3

## CONCLUSIONS

- Synovitis was detected by Color Doppler ultrasound in 50% of patients in clinical remission receiving anti-TNF $\alpha$  therapy with extended interval of administration
- Most of them had low Color Doppler ultrasound score
- Synovial hypertrophy was detected by B-mode ultrasound in 96% after EIA
- No statistically significant differences were found when comparing prior and after EIA clinical and ultrasound scores

## Acknowledgements

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