the proximal interphalangeal joint (PIP) (0.26) and moderate at wrist (0, 56), ultrasound detected more erosions than standard radiography (56% versus 17%), and a statistically significant correlation was observed between the onset of RA, its stage, and the ultrasound score.

**Conclusion:** Evaluation of a heterogeneous group demonstrated that ultrasound completes clinical examination information, particularly at the PIP onset of RA, its stage, and the ultrasound score.

**Disclosure of Interests:** None declared

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**THU0609 ULTRASOUND AS A USEFUL TOOL IN THE DIAGNOSIS OF RHEUMATOID ARTHRITIS IN PATIENTS WITH UNDIFFERENTIATED ARTHRITIS**

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**Background:** Nowadays, rheumatologists face challenges in finding an effective method to classify and treat patients with undifferentiated arthritis (UA). There is a need for new tools that could ensure accurate characterization of inflammatory processes in these patients.

**Objectives:** To investigate if a characterization of UA patients using US may help to fulfill the 2010 ACR/EULAR RA classification criteria in a real-life cohort.

**Methods:** We conducted a cross sectional study in two rheumatology care clinics. Patients not fulfilling the 2010 ACR/EULAR RA criteria were included. On the examination day, all patients underwent a physical examination, radiographs and US. The 7-joint US score (US7) was adopted to scan all patients. US was performed according to EULAR criteria and interpreted by OMERACT definitions. Greyscale and power Doppler synovitis and tenosynovitis were scored. Bone erosions were also evaluated during the US examination.

**Results:** A total of 204 patients were included. The diagnosis was modified from UA to RA in 86 (42.1%) patients. The greater proportion of synovitis detected by US was the main pattern that allowed changing the diagnosis from UA to RA, and modified the final score of the 2010 ACR/EULAR classification criteria, from a mean (±SD) of 4.6 (0.5) by clinical examination, to 6.5 (0.6) by US. The changes in the score of the 2010 ACR/EULAR classification criteria were from score 4 to score 6 in 7 (7%) patients; from 4 to 7 and 24 (27.9%) patients; from 5 to 6 in 42 (48.8%) patients; from 5 to 7 in 5 (5.8%) patients and from 5 to 8 in 5 (5.8%) patients.

In addition to synovitis, a wide range of tenosynovitis and bone erosions were detected by US. Synovitis was more frequently detected in 2ndMCP followed by 2ndMTP and 5thMTP. The tendons of the wrist, 2nd and 3rd finger were the most affected. In relation to bone erosions, 2ndMCP and 5thMTP where the joints with more proportion of anatomical damage.

**Conclusion:** US demonstrated to be useful to help accurately classify RA, patients previously diagnosed with UA.

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**THU0610 ANALYSIS OF ANTINUCLEAR ANTIBODY ANTIBODIES POSITIVITY AND THEIR MAJOR KARYOTYPES IN PATIENTS WITH AUTOIMMUNE DISEASES AND HEALTHY SUBJECTS**

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**Background:** Autoantibodies, especially antinuclear antibodies (ANA), play an important role in the diagnosis and differential diagnosis of autoimmune disease (AID); disease monitoring, efficacy observation and pathogenesis research.

**Objectives:** Our aim was to investigate the rate of ANA positivity and their major karyotypes in different AIDs and healthy controls.

**Methods:** The distribution and positive rate of Antinuclear antibody (ANA) karyotypes were detected by indirect immunofluorescence in 3704 patients with AID and 1073 healthy subjects were retrospectively analyzed.

**Results:** The positive rate of ANA in different AID groups was 90.7% (1845/2034) in SLE, 54% (525/973) in RA, 86.4% (267/309) in SS,