| A15 | **COMPARATIVE STUDY BETWEEN SWEDISH AND SUDANESE RA PATIENTS** |

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Rheumatoid arthritis (RA) is a systemic inflammatory autoimmune disease, characterised by chronic, erosive polyarthritis and by the presence of various autoantibodies. These autoantibodies play an important role in the pathogenesis, especially rheumatoid factor (RF) and antibodies against cyclic citrullinated peptides (anti-CCP). According to our knowledge there are no data published concerning serologic RA phenotypes in Sudan.

Our aim was to evaluate the presence of RF and Anti-CCP in well-characterised cross-sectional hospital-based consecutive cohort of Sudanese RA patients and to compare with an earlier described Swedish early RA cohort.

Serum samples were collected from 96 Sudanese patients with established RA with mean age 49.5 years, mean disease duration 5.6 years (range 2 months to 30 years) and 50 healthy Sudanese blood donor controls. Detailed clinical and laboratory investigations for the diagnosis had been done between December 2008 and August 2009 by senior rheumatologists following the 1987 ACR criteria. All patients were on regular follow-up. 77/91 (84.6%) were treated with DMARDs: 65/91 (71.4%) with methotrexate, 18/91 (19.8%)

with hydroxychlorokine, 13/91 (14.3%) with sulfasalazine and 5/91 (5.5%) with azathioprine; out of these 25/91 (27.5%) were treated with different DMARD combinations. Drug therapy data were missing for five patients. Immunological findings were investigated with identical techniques as used in the previous Swedish study (RF by nephelometry and anti-CCP2 performed with the Eurodiagnostica ELISA).

Sudanese RA patients were more often females (86.5% vs 70.3%; p=0.017) and showed an earlier age of onset (mean 44.4 years) as compared to Swedish RA patients (mean 56.0 years; p<0.0001). Among the Sudanese RA patients 72.9% (70/96) were anti-CCP positive, as compared to 57.3% (160/279) in the Swedish RA group (p<0.0069). Mean anti-CCP levels were also higher in Sudanese as compared to Swedish anti-CCP positive RA patients (mean 912.1 vs 696.5 AU/ml; p=0.0141). There were no qualitative or quantitative differences concerning RF. No Sudanese controls were anti-CCP positive, whereas three (6%) had increased RF levels.

Conclusion Although there might be a sampling bias because different patient groups may attend healthcare in Sudan and Sweden, our data imply that RA patients in Sudan develop their disease earlier, are more often females and have more anti-CCP than RA patients in Sweden. Further phenotypic and genotypic characterisation of the Sudanese RA patients is underway.

'conventional' B cells.