

August 08/08: Anti-CCP in Lupus

The measurement of antibodies to cyclic citrullinated peptides (anti-CCP) is gradually being incorporated into the repertoire of many immunology laboratories. These antibodies are reported to be highly specific (over 95%) and moderately sensitive (about 70%) for rheumatoid arthritis. In several studies the rare false positive samples were from patients with systemic lupus erythematosus (SLE) and the question came up if these SLE patients had deforming arthropathy and if CCP antibodies would be markers for this kind of arthropathy.

To clarify this question, the authors of the following study evaluated the clinical association of anti-CCP in SLE patients with articular damage:

Damián-Abrego GN, Cabiedes J, Cabral AR

Anti-citrullinated peptide in lupus patients with or without deforming arthropathy

Lupus 2008; 17: 300-304

Anti-CCP and rheumatoid factor (RF) were determined in 34 SLE patients, of whom 14 had deforming and 20 had non-deforming arthropathy. As controls, 34 patients with rheumatoid arthritis (RA) and 9 patients with the overlap of SLE and rheumatoid arthritis (rhupus) were included. Anti-DNA antibodies were mandatory inclusion criteria for both SLE groups in order to avoid potential mix-up with RA.

Only 1 SLE patient with deforming arthropathy and 1 SLE patient with non-deforming arthropathy had anti-CCP but both at a very low titer (33.8 and 27.4 U/ml, respectively, with a cut-off at 25 U/ml). On the other hand, 33 of 34 RA patients and all 9 patients with rhupus were anti-CCP positive, with concentrations 30- and 23-fold higher than normal. RF was higher than normal in most groups of patients, while patients with rhupus had the highest values.

Group (n)	Anti-CCP (%)	RF (%)	Anti-CCP & RF (%)
SLE without DA (20)	1 (5)	3 (15)	1 (5)
SLE with DA (14)	1 (7)	9 (65)	0 (0)
RA (34)	33 (97)	29 (85)	28 (82)
Rhupus (9)	9 (100)	9 (100)	9 (100)

Table 1: Frequency of positive anti-CCP and RF or both in SLE with or without deforming arthropathy (DA), RA and rhupus patients

11 of 14 patients with deforming arthropathy (71%) had erosions, this is a higher frequency than in RA patients (11/34, 32%) and similar to rhupus patients (7/9, 78%).

Thus, anti-CCP antibodies are not associated with lupus arthropathy, whether deforming, non-deforming or erosive.

