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Letters to the Editor

Citrullinated filaggrin is decreased in oral keratinocytes in rheumatoid arthritis

Sirs,

Anti-citrullinated peptide antibodies (ACPA) are specific for rheumatoid arthritis (RA). There is local ACPA production in the synovial tissue and citrullinated peptides show peculiar interaction with the HLA-DR B1 shared epitope (1, 2). In RA synovium, peptidylarginine deiminases (PAD) 2 and 4 mediate conversion of arginine into citrulline residues in condensed fibrin and intracellular vimentin, respectively (3, 4). Citrullinated fibrin is also found in other synovial inflammatory conditions (5). Oral keratinocytes (OK) also present citrullination of the protein filaggrin in perinuclear granules. Although filaggrin is not present in the synovium, citrullinated filaggrin might act as a booster in enhancing ACPA expansion in patients already primed by synovial citrullinated proteins. In fact, 48–91% of RA patients have autoantibodies reactive to OK citrullinated filaggrin as documented by the anti-perinuclear factor test (APF) (6). The presence of citrullinated epitopes in OK is documented in 30–73% of healthy subjects (7, 8). We studied the content of citrullinated epitopes in OK in patients with RA (APF-positive and APF-negative) and in patients with other autoimmune diseases (OAD) as well as its possible association with RA clinical parameters.

Serum and OKs were obtained from 78 RA patients, 62 non-RA patients, and 51 non-autoimmune individuals (NAI). RA patients had the modified Sharp’s index (9) determined. OKs were washed twice in 0.15M phosphate buffered saline pH 7.4 (PBS), mediate conversion of arginine into citrulline residues in condensed fibrin and intracellular vimentin, respectively (3, 4). Citrullinated fibrin is also found in other synovial inflammatory conditions (5). Oral keratinocytes (OK) also present citrullination of the protein filaggrin in perinuclear granules. Although filaggrin is not present in the synovium, citrullinated filaggrin might act as a booster in enhancing ACPA expansion in patients already primed by synovial citrullinated proteins. In fact, 48–91% of RA patients have autoantibodies reactive to OK citrullinated filaggrin as documented by the anti-perinuclear factor test (APF) (6). The presence of citrullinated epitopes in OK is documented in 30–73% of healthy subjects (7, 8). We studied the content of citrullinated epitopes in OK in patients with RA (APF-positive and APF-negative) and in patients with other autoimmune diseases (OAD) as well as its possible association with RA clinical parameters.

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