Rituximab treatment in a spondyloarthritis patient with low-grade follicular lymphoma: a case report

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Dear Editor,

In Spondyloarthritis (SpA), tumour necrosis factor inhibitors (TNFi) and IL-17 inhibitors are both recommended for patients with active disease despite treatment with nonsteroidal anti-inflammatory drugs (NSAIDs) and/or conventional-synthetic disease-modifying anti-rheumatic drugs (DMARDcs)[1]. The possible loss of immune surveillance in patients treated with these drugs limits their utilization in the case of active malignancy. Rituximab (RTX), an anti-CD20 antibody has not proven efficacy in patients with SpA who failed TNFi[2]. Despite this, RTX has been used in patients with SpA with promising results[3,4]. Histological studies of spinal specimens from patients with SpA have shown B cell clusters in the subchondral bone marrow exhibiting persistent inflammatory lesions, in correlation with magnetic resonance imaging (MRI) findings[5,6].

We report a case of a patient with SpA who was successfully treated with RTX after being diagnosed with a Non-Hodgkins lymphoma.

A 43-year-old male was diagnosed at age of 21 with SpA with axial, enthesis and peripheral involvement. The x-ray showed a bilateral grade 2 sacroiliitis and HLA-B27 was positive. He had no history of uveitis, psoriasis or inflammatory bowel disease. He was initially managed with NSAIDs, prednisone and methotrexate (MTX) with good disease control until he was 38 years old, when he began with arthritis of small and medium joints, dactylitis and diarrhoea (without mucous or blood). There were no constitutional symptoms. He began with sulfasalazine but with no clinical benefit. The laboratory exams showed a c-reactive protein (CRP) of 9.48 mg/dL, ESR of 108 mm/h, the BASDAI was 8.2, BASFI 8.4 and ASDAS-CRP 5.6. Therefore, the patient begun adalimumab (ADA) 40mg subcutaneously every 2 weeks with MTX and suspension of sulfasalazine. After 12 weeks of treatment, the patient had marked improvement of clinical manifestations and normalization of ESR and CRP. Due to the persistence of diarrhoea, a colonoscopy was done with colon biopsies compatible with follicular lymphoma. Laboratory analysis was unremarkable except for persistent peripheral lymphocytosis and the computed tomography and PET scan did not show active malignant disease. A diagnosis of low-grade follicular lymphoma was established, and ADA was discontinued after 10 months of treatment, leaving only 7.5mg of MTX/week. One month later, arthritis in the knees and on the right wrist emerged, with worsening of the morning stiffness complaints. (Table 1) PET did not demonstrate metabolically active malignant disease, then two infusions of RTX 1000mg IV (two weeks apart) were performed followed by another course after six months, without the need for any additional chemotherapy. Twelve weeks after the first RTX cycle we observed a good clinical response. This therapy has been repeated every 6 months with sustained disease activity control (Table I).

This case describes a good response to RTX in a patient with SpA who developed a malignancy. The usage of RTX in SpA patients with malignancies has previously been reported to be successful[3], as well as in patients who had relative contra-indications or developed adverse events to TNFi[4,7,8]. Decrease of sacroiliac joint inflammation on magnetic resonance imaging was also reported after RTX infusion in a patient who had failed NSAIDs and csDMARDs[10]. In an open label trial, in patients naïve to TNFi, 50% achieved a BASDAI50 response[2] and maintained a good clinical re-

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TABLE I. DISEASE ACTIVITY AND INFLAMMATORY PARAMETERS EVOLUTION

	Adalimumab (initial)	Adalimumab (after 12 weeks)	RTX (initial)	RTX (after 12 weeks)	RTX (3rd cycle)
CRP (mg/dL)	9.48	0.12	0.5	0.7	0.5
ESR mm/h	108	3	6	13	10
BASDAI	8.2	2.4	4.1	2.7	1.9
BASFI	8.4	1.37	4.55	2.5	2.05
ASDAS-CRP	5.6	1.8	2.3	2	1.4

ASDAS - Ankylosing Spondylitis Disease Activity Score; BASDAI - Bath Ankylosing Spondylitis Activity Index; BASFI - Bath Ankylosing Spondylitis Functional Index; CRP - C-reactive protein; ESR - Erythrocyte Sedimentation Rate; RTX - Rituximab

sponse at the end of the first year[10]. In the French Autoimmunity and Rituximab registry, 11/23 patients with SpA responded to RTX[11]. RTX can still be considered a therapeutic alternative in selected SpA patients in which first-line recommended biologics are not effective or are contraindicated.

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