Tumor necrosis factor α inhibition in radiographic and nonradiographic axial spondyloarthritis: results from a large observational cohort


OBJECTIVE
To evaluate the baseline characteristics of patients with radiographic axial spondyloarthritis (SpA; ankylosing spondylitis [AS]) and patients with nonradiographic axial SpA, to investigate determinants of anti-tumor necrosis factor (anti-TNF) agent prescription on the background of a nonrestrictive reimbursement policy, and to assess the response to TNF inhibition.

METHODS
We compared the characteristics of radiographic axial SpA and nonradiographic axial SpA in 1,070 patients from the Swiss Clinical Quality Management (SCQM) Cohort who fulfilled the Assessment of SpondyloArthritis international Society (ASAS) classification criteria for axial SpA. By taking advantage of the situation that patients who are eligible for anti-TNF treatment are preferentially enrolled in the SCQM Cohort for patients with AS/axial SpA, we explored parameters leading to the initiation of anti-TNF treatment in single and multiple regression models and assessed treatment responses.

RESULTS
We confirmed a similar burden of disease (as determined by self-reported disease activity, impaired function, and quality of life) in patients with nonradiographic axial SpA (n = 232) and those with radiographic axial SpA (n = 838). Patients with radiographic axial SpA had higher median levels of acute-phase reactants and higher median AS Disease Activity Scores (ASDAS; 3.2 versus 3.0). Anti-TNF treatment was initiated in 363 patients with radiographic axial SpA and 102 patients with nonradiographic axial SpA, preferentially in those with sacroiliitis on magnetic resonance imaging, peripheral arthritis, a higher C-reactive protein (CRP) level, a higher ASDAS, and a higher Bath Ankylosing Spondylitis Disease Activity Index level. The ASAS criteria for 40% improvement responses at 1 year were higher in patients with radiographic axial SpA compared with those with nonradiographic axial SpA (48.1% versus
29.6%; odds ratio [OR] 2.2, 95% confidence interval [95% CI] 1.12-4.46, \( P = 0.02 \)). The difference was smaller in the subgroups of patients with elevated baseline CRP levels (51.6% in patients with radiographic axial SpA versus 38.5% in those with nonradiographic axial SpA; OR 1.7, 95% CI 0.68-4.48, \( P = 0.29 \)).

CONCLUSION
The indications for treatment with anti-TNF agents were comparable for patients with radiographic axial SpA and those with nonradiographic axial SpA. With the exception of patients with elevated CRP levels at baseline, higher rates of response to TNF inhibition were achieved in the group of patients with radiographic axial SpA than in the group with nonradiographic axial SpA.