respectively. The best trade-off BASDAI values corresponding to ASDAS-CRP 1.3, 2.1 and 3.5 were 2.1, 3.1 and 3.7 respectively. The optimal BASDAI values corresponding to ASDAS-ESR 1.3, 2.1 and 3.5 were 2.0, 2.6 and 4.8 respectively.

Conclusion: The estimated optimal BASDAI value that corresponds to the recommended ASDAS cut-off ≥ 2.1 for biological therapy initiation was lower than the recommended BASDAI cut-off of ≥ 4 in this Taiwanese AS cohort.

Abstract AB0716 Table 1. Optimal BASDAI cut-off values corresponding to ASDAS cut-offs using ROC curve with Youden's J statistic in AS patients.

	BASDAI cut-off	AUC (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)
ASDAS-CRP 1.3	2.1	0.76 (0.72–0.80)	0.70 (0.65–0.75)	0.82 (0.75–0.88)
ASDAS-CRP 2.1	3.1	0.78 (0.74–0.82)	0.69 (0.62–0.76)	0.87 (0.83–0.91)
ASDAS-CRP 3.5	3.7	0.82 (0.75–0.89)	0.84 (0.66–0.95)	0.81 (0.77–0.84)
ASDAS-ESR 1.3	2.0	0.80 (0.77–0.84)	0.74 (0.69–0.78)	0.87 (0.80–0.92)
ASDAS-ESR 2.1	2.6	0.79 (0.76–0.83)	0.81 (0.74–0.86)	0.78 (0.73–0.82)
ASDAS-ESR 3.5	4.8	0.79 (0.70–0.89)	0.67 (0.46–0.83)	0.92 (0.89–0.94)

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AB0717

RELIABILITY OF SACROILIAC JOINT RADIOGRAPHS IN THE EARLY SPONDYLOARTHRITIS ESPERANZA COHORT

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Background: X-Ray sacroiliitis is the cornerstone in the diagnosis of the ankylosing spondylitis (AS). It is clear that the presence of sacroiliitis is a specific lesion in long standing AS, but little evidence exists on the reliability of this image technique in early axial spondyloarthritis (axSpA), which associates with reduced structural damage. This is relevant because some rheumatologists and pharmacological authorities feel more confident with the diagnosis of AS rather than with non radiographic axial spondyloarthritis (nr-axSpA) forms. On the other hand, according to various research studies, clinicians are subject to potential bias when interpreting radiographs, influenced by their pretest clinical judgment

Objectives: The main objective of this study is to determine the reliability of X-Ray sacroiliitis in the early diagnosis of axSpA.

Methods: This study included 290 radiographs of the SI joints from patients of the Esperanza early spondyloarthritis cohort. Nine readers,

blinded for the diagnosis, participated in the reliability exercise, all of them experienced rheumatologists and members of the Spanish spondyloarthritis working group (GRESER). Patients with axSpA were classified as having AS if the radiographic criteria of the modified NY criteria (presence of radiographic changes in the SIJ of at least grade II bilaterally or at least grade III unilaterally) were fulfilled. The gold standard was the categorical opinion of at least five of the expert readers. For the statistical analysis, the Chi-square and Kappa tests were performed.

Results: The table shows mean kappa values and the agreement reached by each reader. The mean kappa achieved was fair (0.375, range 0.146 - 0.652) and the mean agreement was 73.7% (range: 58.7% - 90%). When the categorical opinion of X-Ray sacroiliitis of at least 5 readers as gold standard was applied, 61 patients were classified as AS and 229, as nr-axSpA. Nevertheless, this scenario varied from 31 to 138 among the readers when the x-ray evaluation was performed by only one reader.

Conclusion: Reliability of X-Ray SIJ in an early SpA cohort was weak among nine experimented readers and the diagnosis of AS was subject to a high variability. At least in doubtful cases, a central evaluation performed by highly qualified readers is advisable.

	Gold standard	Reader 1	Reader 2	Reader 3	Reader 4	Reader 5	Reader 6	Reader 7	Reader 8	Reader 9
Kappa	0.716	0.345	0.468	0.606	0.599	0.459	0.612	0.513	0.809	
Agreement	90.97	68.06	85.52	84.48	85.12	73.79	87.59	78.47	94.14	
SIJ mNY+	61	54	138	31	92	80	137	55	115	48
SIJ mNY TP	61	44	53	25	54	49	61	40	57	46
SIJ mNY FP	229	10	85	6	38	31	76	15	58	2
Sensitivity	73.33%	88.33	59.02	88.52	80.33	100	85.57	93.44	75.41	
Specificity	95.61%	62.72	97.38	83.41	86.40	66.81	93.45	74.45	91.13	
LR +	16.70	2.969	22.53	5.336	5.907	3.013	10.01	3.657	8.502	

SIJ = (SI) joint; mNY+ = number of patients that meet diagnosis of ankylosing spondylitis; TP = true positives; FP = false positives; LR+ = Likelihood ratio +

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AB0718

IDENTIFYING AXIAL SPONDYLOARTHRITIS IN THE UNITED STATES: A POSSIBLE ROLE FOR CHIROPRACTORS

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Background: Approximately 19% of the general population in the United States has chronic back pain (CBP), with 5%-6% of these cases classified as inflammatory back pain (IBP).¹ According to the US National Health and Nutritional Examination Survey, = 15% of patients with IBP have axial spondyloarthritis (axSpA).^{1,2} which can cause irreversible structural damage in the spine, loss of function, and a decreased quality of life. The diagnosis of axSpA is commonly missed, as patients seek care for back pain (BP) from a variety of non-rheumatology providers, including chiropractors.³ Overall, nearly 50% of patients seek chiropractic care for BP.⁴ However, not much is known about the prevalence of different types of BP (acute, chronic, IBP, and BP due to axSpA) in patients seeking chiropractic care in the United States.

Objectives: To investigate the types of providers sought by patients with BP and the prevalence of acute BP, CBP, IBP, and axSpA in patients with BP seeking chiropractic care in the United States. A secondary objective was to investigate how frequently chiropractors refer patients with BP to a rheumatologist.

Methods: PubMed literature searches were performed for all English language articles published through December 2017 to determine which providers are sought by patients with BP as well as the percentage of patients with BP being referred to a rheumatologist following chiropractic consultation. Search terms included "chiropractic," "chiropractor," "axial spondyloarthritis," "ankylosing spondylitis," "inflammatory back pain," "chronic back pain," "acute back pain," "low back pain," "sacroiliac joint," "sacroiliac pain," "back pain epidemiology," "rheumatologist," and "rheumatology." The full text of relevant articles was evaluated for specific data and BP statistics in this care setting.