

Online supplement S2

Table S2.1. Baseline comparisons among patients not-fulfilling MNY criteria

	Smoker	Non-smoker	p-value
Mean age (years) (N=442)	33.3±8.0	35.1±8.4	0.03
Mean age at onset of IBP(years) (N=432)	31.8±8.1	33.5±8.5	0.04
Mean duration of axial symptoms (years) (N=432)	1.5±0.9	1.5±0.9	0.66
Drinker (N=443)	31 (20.4%)	26 (8.9%)	0.001
Male sex (N=444)	67 (43.8%)	117 (40.2%)	0.47
HLA-B27 positive (N=439)	89 (58.6%)	170 (59.2%)	0.89
NSAIDs score (N=401)	95.6±84.5	91.5±188.8	0.81
Mean CRP (mg/l) (N=432)	6.4±14.0	6.3±12.8	0.94
Mean ESR (mm) (426)	11.4±14.2	12.5±13.2	0.42
BASDAI (N=439)	4.9±1.9	4.5±2.0	0.04
ASDAS-CRP (N=426)	2.6±1.0	2.4±1.0	0.12
ASDAS-ESR (N=420)	2.2±0.8	2.1±0.8	0.30
BASFI (N=436)	3.5±2.3	2.9±2.3	0.01
BASMI (N=441)	2.3±0.9	2.1±0.9	0.11
AS quality of life questionnaire (N=443)	10.7±4.9	9.0±4.9	<0.001
Health assessment questionnaire - disability index (N=441)	1.0±0.7	0.9±0.7	0.06
SF-36 Mental health score (N=441)	44.9±20.0	50.9±20.0	0.003
SF-36 Physical health score (N=440)	34.3±16.1	39.1±16.3	0.003
Inflammatory lesions in SI joints (N=427)	42 (28.8%)	53 (18.9%)	0.02
Inflammatory lesions in spine (N=424)	31 (21.5%)	39 (13.9%)	0.046
Structural lesions in SI joints (N=427)	22 (15.1%)	31 (11.0%)	0.23
Structural lesions in spine (N=421)	13(9.1%)	14 (5.0%)	0.11
MRI inflammation, spine or SI joints (N=425)	57 (39.3%)	74 (26.4%)	0.01
MRI structural lesions, spine or SI joints (N=423)	32 (22.2%)	43 (15.4%)	0.08
mSASSS (N=440)	0.8±2.5	0.7±1.8	0.64
mSASSS>0 (N=440)	27 (17.9%)	54 (18.7%)	0.84

NSAID, non-steroidal anti-inflammatory drug; DMARD, disease modifying anti-rheumatic drug; CRP, C-reactive protein; ESR, erythrocyte sedimentation rate; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; ASDAS-CRP, Ankylosing Spondylitis Disease Activity Score (CRP based); BASFI, Bath Ankylosing Spondylitis Functional Index; BASMI, Bath Ankylosing Spondylitis Metrology Index; MRI, magnetic resonance imaging; SI, sacroiliac; mSASSS, modified Stoke Ankylosing Spondylitis Spine Score; IBP, inflammatory back pain

Table S2.2. Multivariate linear regressions analyses of factors associated with age at onset of IBP

	Standard coefficient	Regression coefficient (95% CI)	p-value
Smoker	-0.12	-2.06 (-3.72; -0.40)	0.02
Caucasian race	0.13	3.80 (1.03; 6.58)	0.01
HLA-B27 positivity	NS	NS	--
Family history of SpA	-0.10	-1.88 (-3.72; 0.04)	0.045

IBP=inflammatory back pain; HLA=Human leukocyte antigen; SpA=spondyloarthritis; CI=confidence interval; NS=not significant in multivariate model

Table S2.3. Multivariate linear regressions analyses of factors associated with BASDAI and BASFI

	BASDAI			BASFI		
	Standard coefficient	Regression coefficient (95% CI)	p-value	Standard coefficient	Regression coefficient (95% CI)	p-value
Smoker	0.12	0.48 (0.10, 0.86)	0.02	NS	NS	--
Caucasian race	-0.11	-0.78 (-1.44, -0.12)	0.02	NS	NS	--
Male sex	NS	NS	--	-0.07	-0.34 (-0.68, 0.00)	0.047
HLA-B27 positivity	-0.11	-0.42 (-0.79, -0.05)	0.03	NS	NS	--
Drinker	NS	NS	--	NI	NI	--
CRP	0.13	0.20 (0.04, 0.36)	0.02	NI	NI	--
ESR	0.21	0.47 (0.22, 0.72)	<0.001	NI	NI	--
MRI SI joints inflammatory lesions	-0.15	-0.71 (-1.16, -0.25)	0.002	NI	NI	--
ASDAS-CRP	NI	NI	--	0.55	1.23 (1.06, 1.39)	<0.001
BASMI	NI	NI	--	0.27	0.69 (0.51, 0.88)	<0.001

ASDAS-CRP=Anklosing Spondylitis Disease Activity Score; BASDAI=Bath Ankylosing Spondylitis Disease Activity Index; BASFI=Bath Ankylosing Spondylitis Functional Index; HAQ-AS=health assessment questionnaire for ankylosing spondylitis; HLA=Human Leukocyte Antigen; CRP=C-reactive protein; ESR=erythrocyte sedimentation rate; MRI=magnetic resonance imaging; SI=sacroiliac; BASMI=Bath Ankylosing Spondylitis Metrology Index; CI=confidence interval; NS=Non-significant in multivariate analysis; NI=Not included in the multivariate model.

Table S2.4. Multivariate linear regressions analyses of factors associated with Euro-QoL and SF-36

	Euro-QoL			SF-36 (physical health score)			SF-36 (mental health score)		
	Standard coefficient	Regression coefficient (95% CI)	p-value	Standard coefficient	Regression coefficient (95% CI)	p-value	Standard coefficient	Regression coefficient (95% CI)	p-value
Smoker	0.12	1.29 (0.49; 2.09)	0.002	-0.12	-4.02 (-6.74; -1.30)	0.004	-0.12	-5.01 (-8.61; -1.41)	0.01
Caucasian race	NS	NS	--	0.10	5.78 (1.20; 10.37)	0.01	0.11	7.87 (1.80; 13.93)	0.01
Male sex	-0.13	-1.33 (-2.10; -0.55)	0.001	NS	NS	--	NS	NS	--
HLA-B27 positivity	NS	NS	--	NS	NS	--	NI	NI	--
Drinker	NS	NS	--	NS	NS	--	NS	NS	--
MRI SI joints inflammation	-0.13	-1.55 (-2.49; -0.62)	0.001	0.11	4.45 (1.21; 7.63)	0.01	0.13	6.17 (2.02; 10.31)	0.004
ASDAS-CRP	0.53	2.55 (2.17; 2.92)	<0.001	-0.53	-8.45 (-9.72; -7.18)	<0.001	-0.45	-8.72 (-10.39; -7.04)	<0.001
BASMI	0.17	0.98 (0.54; 1.42)	<0.001	-0.16	-3.07 (-4.58; -1.56)	<0.001	-0.09	-2.17 (-4.15; -0.20)	0.03

Euro-QoL= Euro- quality of life questionnaire;; SF-36=short form 36; ASDAS-CRP=Anklosing Spondylitis Disease Activity Score, C-reactive protein based; MRI=magnetic resonance imaging; SI=sacroiliac; BASMI=Bath Ankylosing Spondylitis Metrology Index; CI=confidence interval; NS=Non-significant in multivariate analysis; NI=Not included in the multivariate model.

Table S2.5. Multivariate linear regressions analyses of factors associated with HAQ (disability index)

	Standard coefficient	Regression coefficient (95% CI)	p-value
Smoker	NS	NS	--
Caucasian race	NS	NS	--
Male sex	-0.20	-0.30 (-0.41; -0.18)	<0.001
HLA-B27 positivity	NS	NS	--
ASDAS-CRP	0.43	0.30 (0.25; 0.36)	<0.001
BASMI	0.23	0.19 (0.12; 0.26)	<0.001

HAQ=health assessment questionnaire; HLA=human leukocyte antigen; ASDAS=ankylosing spondylitis disease activity score; BASMI=Bath Ankylosing Spondylitis Metrology Index; NS=not significant in multivariate analysis; CI=confidence interval

Table S2.6. Multivariate logistic regressions analyses of factors associated with MRI inflammation

	MRI spine inflammation		MRI SI joints inflammation		MRI inflammation (spine or SI joints)	
	Odds ratio (95% CI)	p-value	Odds ratio (95% CI)	p-value	Odds ratio (95% CI)	p-value
Smoker	NS	--	NS	--	1.65 (1.05; 2.59)	0.03
Caucasian race	1.74 (1.01; 3.00)	0.045	NI	--	NI	--
Male sex	1.95 (1.09; 3.49)	0.03	1.70 (1.04; 2.76)	0.03	1.61 (1.04; 2.50)	0.04
HLA-B27 positivity	NI	--	1.81 (1.08; 3.05)	0.03	1.84 (1.16; 2.93)	0.01
Age at onset of IBP	NI	--	NS	--	NI	--
Family history of AS	0.34 (0.15; 0.74)	0.01	NI	--	NS	--
CRP	NS	--	NI	--	1.02 (1.00; 1.04)	0.03

MRI=magnetic resonance imaging; SI=sacroiliac; CI=confidence interval; HLA=Human Leukocyte Antigen; IBP=inflammatory back pain; NS=Non-significant in multivariate analysis; NI=Not included in the multivariate model.

Table S2.7. Multivariate logistic regressions analyses of factors associated with MRI structural lesions

	MRI structural lesions (SI joints or spine)		MRI SI joints structural lesions	
	Odds ratio (95% CI)	p-value	Odds ratio (95% CI)	p-value
Smoker	NS	--	NS	--
Caucasian race	NI	--	0.28 (0.09; 0.89)	0.03
HLA-B27 positivity	NS	--	1.26 (0.03; 1.54)	0.02
Family history of AS	NS	--	NI	--
Disease duration	NI	--	NS	--

MRI=magnetic resonance imaging; HLA=Human Leukocyte Antigen; SI=sacroiliac; NS=Non-significant in multivariate analysis; NI=Not included in the multivariate model.