Table S1.1. Baseline comparisons among patients fulfilling MNY criteria

	Smoker	Non-smoker	p-value
Mean age (years) (N=181)	31.1±8.5	31.4±9.5	0.85
Mean age at onset of IBP (years) (N=174)	29.7±8.7	29.9±9.5	0.86
Mean duration of axial symptoms (years) (N=174)	1.7±0.9	1.5±0.8	0.19
Drinker (N=179)	23 (30.3%)	14 (13.6%)	0.01
Male sex (N=181)	51 (65.4%)	55 (53.4%)	0.11
HLA-B27 positive (N=181)	51 (65.4%)	55 (53.4%)	0.11
NSAIDs score (N=178)	117.7±90.7	129.3±121.3	0.48
Mean CRP (mg/l) (N=173)	10.8±12.8	11.8±17.0	0.68
Mean ESR (mm) (171)	15.9±15.9	20.7±22.6	0.10
BASDAI (N=180)	4.2±1.9	3.9±2.2	0.31
ASDAS-CRP (N=181)	2.7±1.0	2.5±1.1	0.37
ASDAS-ESR (N=180)	2.5±1.0	2.5±1.2	0.88
BASFI (N=177)	3.3±2.2	2.5±2.2	0.02
BASMI (N=181)	2.3±0.9	2.4±0.9	0.50
Euro-quality of life questionnaire (N=180)	9.7±4.6	7.9±5.2	0.02
Health assessment questionnaire - disability index (N=181)	0.9±0.7	0.8±0.7	0.58
SF-36 Mental health score (N=179)	49.2±20.5	58.0±21.5	0.01
SF-36 Physical health score (N=180)	38.2±15.6	44.5±18.0	0.01
Inflammatory lesions in SI joints (N=173)	61 (82.4%)	68 (68.7%)	0.04
Inflammatory lesions in spine (N=171)	40 (54.8%)	22 (22.4%)	<0.001
Structural lesions in SI joints (N=173)	55 (74.3%)	59 (59.6%)	0.04
Structural lesions in spine (N=171)	14(19.2%)	11 (11.2%)	0.15
MRI inflammation, spine or SI joints (N=173)	67 (90.5%)	71 (71.7%)	0.002
MRI structural lesions, spine or SI joints (N=172)	55 (75.3%)	62 (62.6%)	0.08
mSASSS (N=179)	2.6±4.4	1.7±4.0	0.15
mSASSS>0 (N=179)	38 (49.4%)	37 (36.3%)	0.08

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 S1.2. Multivariate linear regressions analyses of factors associated with BASFI

	BASFI		
	Standard coefficient	Regression coefficient (95% CI)	p- value
Smoker	0.19	0.87 (0.28, 1.46)	0.004
HLA-B27 positivity	-0.21	-1.06 (-1.70, -0.43)	0.001
Drinker	-0.15	-0.77 (-1.44, -0.11)	0.02
MRI spine inflammatory lesions	NS	NS	--
ASDAS-CRP	0.50	1.02 (0.76, 1.27)	<0.001
BASMI	NS	NS	--

ASDAS-CRP= Anklosing Spondylitis Disease Activity Score; BASFI= Bath Ankylosing Spondylitis Functional Index; HAQ-AS= health assessment questionnaire for ankylosing spondylitis; HLA=Human Leukocyte Antigen; CRP=C-reactive protein; 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 S1.3. 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	0.18	1.82 (0.64; 3.00)	0.003	-0.23	-7.95 (-12.11; -3.78)	<0.001	-0.20	-8.49 (-14.00; -2.98)	0.003
Caucasian race	NS	NS	--	0.17	8.46 (2.39; 14.53)	0.01	0.16	10.54 (2.67; 18.41)	0.01
Male sex	-0.20	-2.09 (-3.30; -0.88)	0.001	0.18	6.54 (2.27; 10.80)	0.003	0.24	10.76 (5.30; 16.22)	<0.001
HLA-B27 positivity	-0.19	-2.14 (-3.54; -0.74)	0.003	0.13	5.28 (0.30; 10.25)	0.04	0.16	7.71 (1.47; 13.95)	0.02
MRI SI joints inflammation	NS	NS	--	NS	NS	--	NS	NS	--
ASDAS-CRP	0.49	2.28 (1.73; 2.83)	<0.001	-0.48	-7.77 (-9.69; -5.85)	<0.001	-0.47	-9.44 (-11.93; -6.96)	<0.001
BASMI	0.15	0.84 (0.14; 1.53)	0.02	NS	NS	--	NS	NS	--

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.

Table S1.4. Multivariate logistic regressions analyses of factors associated with MRI inflammation

	MRI inflammation (spine or SI joints)		MRI SI joints inflammation		MRI spine inflammation	
	Odds ratio (95% CI)	p-value	Odds ratio (95% CI)	p-value	Odds ratio (95% CI)	p-value
Smoker	3.03 (1.20; 7.67)	0.02	NS	--	3.92 (1.96; 7.83)	<0.001
Male sex	NS	--	NS	--	2.23 (1.08; 4.60)	0.03
HLA-B27 positivity	NS	--	NS	--	NI	--
Age at onset of IBP	NS	--	NS	--	NI	--
Disease duration	NI	--	NI	--	NS	--

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 S1.5. Multivariate logistic regressions analyses of factors associated with MRI structural lesions and spinal radiographic damage

	MRI structural lesions (SI joints or spine)		MRI SI joints structural lesions		mSASSS>0	
	Odds ratio (95% CI)	p-value	Odds ratio (95% CI)	p-value	Odds ratio (95% CI)	p-value
Smoker	NS	--	NS	--	2.11 (1.08; 4.12)	0.03
Caucasian race	NI	--	0.28 (0.09; 0.89)	0.03	0.28 (0.09; 0.89)	0.03
HLA-B27 positivity	NS	--	NS	--	1.26 (0.03; 1.54)	0.02
Age at onset of IBP	NI	--	NI	--	1.07 (1.03; 1.11)	0.001
Family history of AS	NS	--	NI	--	NI	--
Disease duration	NI	--	NS	--	NI	--
CRP	NI	--	NI	--	1.03 (1.01; 1.05)	0.01

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