THU0269

DEVELOPMENT OF ANKYLOSING SPONDYLITIS IN PATIENTS WITH REACTIVE ARTHRITIS AND PERIPHERAL SPONDYLOARTHROPATHY: HOSPITAL BASED STUDY IN NORTH INDIA

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Background: Reactive arthritis (ReA) is a seronegative spondyloarthropathy (SpA) that is precipitated by urogenital or gastrointestinal infection. Undifferentiated Peripheral spondyloarthropathy (UpSpA) may be indistinguishable from ReA except known preceding infection. It is stated that two-thirds of ReA resolve within three months while a third develop chronic or recurrent course. However, there is a paucity of data on the long-term outcome. Thus, it is difficult to justify treatment decisions like the use of biologicals in ReA

Objectives: To determine the outcome of ReA/upSpA patients attending a referral rheumatology centre in North India.

Methods: ReA was classified as per Braun's criteria, while UpSpA were included as meeting ASAS criteria but not criteria for psoriatic arthritis or inflammatory bowel disease associated arthritis. Data on this retrospective cohort was updated with telephonic interviews. Follow-up of less than 1 year were excluded. Patients with persistent inflammatory back pain (IBP) were reviewed in the clinic. Radiographs assessed progression to AS (modified New York criteria).

Results: Follow-up data on 85 patients (63 ReA; 22 pSpA) was obtained. Median (IQR) age at presentation was 24.5 (20–33) years. 14 (16.5%) were female. At presentation, 23 (30%) had monoarthritis, 44 (57%) had oligoarthritis, 10 (13%) had polyarthritis (data missing for eight). Enthesitis and dactylitis were documented in 20 and 5 respectively. Keratoderma and balanitis were seen in one each. 40 (80%) out of 50 were positive for HLA-B27.

Median (IQR) follow-up was 2 (1–5.25) years. 22 had monophasic illness of which 13 had acute arthritis (<12 weeks). Seven had two episodes, 27 had polycyclic course while 29 had persistent arthritis. 26 had inflammatory back pain (IBP) at any time and eight had persistent symptoms. Out of these, three (3.5%) met criteria for AS (disease duration: 1, 3 and 10 years) while two had unilateral grade 2 sacroiliitis. Three patients without IBP also had sacroiliitis on radiographs. Logistic regression revealed no significant parameter that could predict progression to AS

Conclusions: In contrast to general opinion that two thirds attend remission, this study showed that one third undergo drug free remission. Of the remaining, half develop recurrent and half persistent arthritis. 3.5% progressed to AS. As duration of follow-up increases, a greater proportion may progress to AS.

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THU0270

THE PROPENSITY TO FAT METAPLASIA OF SACROILIAC JOINT IN SPONDYLOARTHROPATHY: RESULTS FROM THE SINGLE REGIONAL CENTRE COHORT

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Background: The predictor of radiographic spinal progression is the presence of syndesmophytes at baseline in axial spondyloarthritis (axSpA) and fat metaplasia on spine maybe predict the formation of new syndesmophytes. Some studies suggests that fat metaplasia maybe a potential starting point for new bone formation

and have a general systemic effect on new bone formation in spine, rather than results from local inflammation. Recent studies suggest that fat metaplasia on sacroiliac joint (SIJ) MRI at baseline is associated with spinal radiographic progression in axSpA patients.

Objectives: So in this study, we investigated for propensity to fat metaplasia on SIJ in axSpA patients.

Methods: The 357 patients who fulfilled the ASAS axSpA criteria were enrolled. All underwent MRI on SIJ with T2 MR image, T1 fat suppressed with enhanced and short τ inversion recovery (STIR) image at baseline and lumbar spine radiographs at baseline and after 2 years. Inflammatory and structural lesions on SIJ MRI was scored using the SPondylo Arthritis Research Consortium of Canada (SPARCC) method. spinal radiographs were scored using the Stoke AS Spinal Score (SASSS). Multivariate logistic regression analysis was performed to identify for propensity to fat metaplasia on SIJ in axSpA patients.

Results: Among the 357 patients on baseline SIJ MRI finding, 182 patients showed fat metaplasia on SIJ, 148 patients showed erosion and 27 patients showed ankylosis. Propensity to fat metaplasia in axSpA patients showed the male, HLA-B27 negative, smoking, back pain onset time within 6–12 months at time of diagnosis, uveitis, peripheral arthritis, compared to erosion and anylosis on SIJ in axSpA patients. The patient with fat metaplasia or ankylosis on SIJ at baseline showed increased SASSS but there was no significant change in SPARCC over 2 years. univariate logistic regression analysis showed back pain onset time within 6–12 months at time of diagnosis and uveitis as a significant predictors of fat metaplasia. multivariate logistic analysis showed back pain onset time within 6–12 months at time of diagnosis as an affecting factor for fat metaplasia on SIJ (OR,5.67; 95% CI 4.71–17.95).

Abstract THU0270 – Table 1. The radiographic spinal progression over 2 years according to structural lesion in the sacroiliac joints observed on baseline MRI

	Fat metaplasia	Erosion	Ankylosis
Baseline SASSS	8.5±11.5	2.4±4.1	16.9±11.8
Change in SASSS over 2 years	0.7±1.7	0.4±0.6	0.8±1.7

Data are expressed as the mean±SD

Abstract THU0270 – Table 2. Univariate and multivariate analysis of affecting factor for fat metaplasia on SIJ

variables	univariate analysis		Multivariate analysis	
	OR(95%)	p-value	OR(95%)	p-value
Age at time of diagnosis (years)	1.10(1.05-1.15)	0.04		
HLA-B27 positive	0.28(0.09-0.94)	0.07		
Smoking	0.38(0.15-0.98)	0.06		
Back pain within 6-12months at time of diagnosis	3.12(0.89-10.91)	0.02	5.67(4.71-17.95)	0.03
uveitis	2.59(1.04-6.44)	0.03	2.00(0.47-8.62)	0.07
BASDIA	1.45(0.89-2.78)	0.05		
Peripheral arthritis	0.32(0.10-1.00)	0.06		
Elevated ESR	2.59(1.04-6.44)	0.06		
Elevated CRP	2.48(1.00-6.19)	0.06		

OR: odd ratio CI: confidence interval

Conclusions: The back pain onset time within 6–12 months at time of diagnosis was affecting factor for propensity to fat metaplasia on SIJ in axSpA patients statistically and fat metaplasia on SIJ was associated with radiographic spinal progression in axSpA patients. so the early detection of fat metaplasia on SIJ in axSpA patients was important to protection of radiographic spinal progression.

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Place of study, year of publication	Subjects	Female: male	Follow up	Remission	Chronic arthritis	HLA B27	Radiological sacroiliitis (including asymptomatic)
France, 20 161	62 ReA	10:52	45 pt; 34 months	54%	44% SpA; 4% PsA	64.3%	NA
Finland, 19 972	63 reactive salmonella arthritis	28:35	50 pt; mean 11 years	Drug free: 31.7%	28.5%	88%	13.6%
Helsinki, 2009 ³	60 ReA	26:34	40 at 32 years	HAQ 0 in 15%	NA	85%	15%
Current study	61 ReA/14 uSpA	14:71	85 pt; median 2 years	Drug free: 35%	34%	80%	8.23%