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FRI0458

OBJECTIVE MEASURES OF PSORIASIS SEVERITY AND THE RISK FOR PSA: RESULTS FROM THE INCIDENT HEALTH OUTCOMES AND PSORIASIS EVENTS PROSPECTIVE COHORT STUDY

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Background: Psoriasis severity is a presumed risk factor for development of psoriatic arthritis (PsA) but most studies have examined this question retrospectively. Additionally, it remains unclear whether obesity and body surface area of psoriasis (BSA) are independent risk factors for PsA.

Objectives: We examined the association of psoriasis severity, obesity and other potential risk factors for the development of PsA in patients with psoriasis.

Methods: Between 2008-2011, patients with at least one code for psoriasis aged 25-60 years in The Health Improvement Network were randomly selected and questionnaires were sent to their general practitioners (GPs). GPs were asked to confirm the diagnosis of psoriasis and provide the patient's approximate BSA that the patient typically demonstrates based on categories commonly used for epidemiological studies. Data through 2015 were used in the current analysis. After excluding patients with PsA at baseline, the incidence of PsA among patients with psoriasis was calculated. Cox proportional hazard ratios were used to examine the risk of developing PsA among patients with mild (<3%), moderate (3-10%) and severe (>10%) psoriasis. We also examined other covariates including obesity, depression, recent infections, smoking, and comorbidities in univariable models. Factors significant at the univariable level were included in multivariable models. We additionally tested an interaction between BSA and obesity.

Results: Among 10,474 questionnaires sent, 9,987 (95%) were returned and, of those, 9,069 (91%) had confirmed psoriasis. The mean age was 46 and 53% were female. BSA was provided for 8,881 patients of which 52% had mild psoriasis, 36% moderate psoriasis, and 12% severe psoriasis. Mean follow up time was 4.2 years (SD 2.1); the incidence of PsA was 5.4 cases per 1,000 person years. In univariable models, age and sex were not associated with PsA but obesity, BMI (continuous), BSA (continuous and category) and depression were significantly associated with development of PsA. The final multivariable model included BSA category (ref mild, moderate: HR 1.44, 95%CI: 1.02-2.03; severe HR 1.99, 1.28-3.11), history of depression (1.69, 1.22-2.34), obesity (1.64, 1.19-2.25), age (HR 0.99, 0.98-1.00) and female sex (HR 0.72, 0.52-0.99). There was not a statistically significant interaction between BSA and obesity although patients that were obese and had ≥10% BSA had the highest risk (HR 3.90, 2.22-6.85).

Conclusion: In this large prospective cohort study, we found that body surface area is a strong predictor of developing psoriasis over the next 4-7 years and obesity is an additive risk factor.

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	Univariable	Multivariable
	HR (95% CI)	HR (95% CI)
Age	0.99 (0.98-1.00)	0.99 (0.98-1.00)
Female Sex	0.83 (0.63-1.09)	0.72 (0.52-0.99)
Body Mass Index (per 1 unit)	1.04 (1.02-1.07)	
Obese BMI (BMI>30 vs <=30)	1.62 (1.20-2.17)	1.64 (1.19-2.25)
Smoking		
Never	Ref	
Current	0.90 (0.64-1.27)	
Past	1.30 (0.95-1.79)	
Body Surface Area Category		
Mild (<3)	Ref	
Moderate (3-10)	1.55 (1.13-2.14)	1.44 (1.02-2.03)
Severe (>10)	2.40 (1.60-3.59)	1.99 (1.28-3.11)
Anxiety	0.94 (0.67-1.32)	
Depression	1.45 (1.09-1.92)	1.69 (1.22-2.34)
Any diarrheal illness	1.28 (0.93-1.75)	
Disabled	1.41 (0.75-2.67)	
Prior light therapy	2.29 (1.33-3.93)	
Hyperlipidemia	0.94 (0.60-1.48)	
Hypertension	1.04 (0.72-1.49)	
Diabetes	0.72 (0.40-1.30)	

FRI0459

PREVALENCE OF DISEASE DOMAIN PRESENTATIONS AMONG PATIENTS WITH PSORIATIC ARTHRITIS: RESULTS FROM THE CORRONA PSORIATIC ARTHRITIS/SPONDYLOARTHRITIS (PSA/SPA) REGISTRY

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Background: Psoriatic arthritis (PsA) is a heterogeneous, chronic inflammatory disease of the skin and musculoskeletal system. Six key domains of PsA have been identified to help guide treatment: peripheral arthritis, axial disease, enthesitis, dactylitis, and psoriatic skin and nail disease.¹ Understanding the epidemiology of these different disease presentations is important for the management and treatment of PsA, yet there is limited evidence available.

Objectives: To describe the prevalence of disease domain presentations among patients with PsA at enrollment in the Corrona PsA/SpA Registry.

Methods: This study included adult patients with PsA enrolled in the Corrona PsA/SpA Registry between March 2013 and August 2018. Patients were evaluated for the presence of 6 disease domains at enrollment: enthesitis (Spondyloarthritis Research Consortium of Canada enthesitis count > 0), dactylitis (dactylitis count > 0), peripheral arthritis (PA; tender and/or swollen joint count > 0), nail psoriasis (global nail psoriasis visual analog scale > 0), axial disease (physician-reported presence of spinal involvement, based on clinical judgment and/or radiographs or MRI showing sacroiliitis), and skin disease (BSA > 0%). The most common mutually exclusive disease presentations were summarized among all patients