PAIN IN PSORIATIC ARTHRITIS AND ITS RELATION TO THE DISEASE ACTIVITY: CLINICAL AND ULTRASONOGRAPHIC STUDY

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INTRODUCTION

Psoriatic arthritis (PsA) is a chronic, immune mediated, inflammatory musculoskeletal disease characterized by inflammation of not only articular sites but also extra articular sites like entheses, tendons, fingers, toes and skin.(1) Pain is a major concern for patients with PsA.(2) It may be a nociceptive type of pain (caused by the inflammatory damage and tissue destruction), a neuropathic (due to augmented central chronic pain processing) or even mixed type may be present.(3)The different pain mechanisms in PsA patients may lead to misinterpretation of the disease activity and accordingly excessive therapy.(4)

AIM OF THE WORK

To study pain in PsA patients and its relation to the disease activity by clinical and ultrasound scores.

SUBJECTS AND METHODS

Thirty patients diagnosed according to CASPAR criteria as PsA were enrolled in the current study. Patients with other neuropathic disorders (e.g. diabetic neuropathy) or other rheumatic conditions were excluded.

All patients were subjected to clinical assessment of the musculoskeletal system and skin disease assessment. Pain was assessed by pain NRS, Swollen to Tender joint Ratio (STR), Manual Tender Point Count (TPC), Widespread Pain Index (WPI) and Pain Detect Questionnaire (PDQ). The disease activity was assessed clinically by using the Disease Activity index for Psoriatic Arthritis (DAPSA), the Composite Psoriatic Disease Activity Index (CPDAI) and the Psoriatic Arthritis Disease Activity Score (PASDAS) and ultrasonographically by PsA-Son13 score.

RESULTS

Pain intensity was not significantly correlated with all clinical and US disease activity scores, but had a significant positive correlation with PDQ, fatigue and functional measures.

PDQ was significantly positively correlated with Tender Joint Count (TJC), Leed's Enthesitis Index (LEI), DAPSA.

Table 1: Correlation between pain parameters and clinical examination scores (n = 30)

Pain parameters / Clinical Examination	TPC		WPI		PDQ		STR		Pain NRS (0 – 10)	
	r_s	p	r_s	P	r_s	P	r_s	p	r_s	P
Number of fingers affected by dactylitis	0.123	0.519	0.234	0.214	0.154	0.416	0.411	0.024*	0.059	0.757
TJC 68	0.735	<0.001*	0.423	0.020*	0.433	0.017*	-0.606	<0.001*	0.228	0.225
SJC 66	0.187	0.321	0.192	0.310	0.263	0.161	0.564	0.001*	0.022	0.910
SPARCC	0.721	<0.001*	0.246	0.190	0.288	0.123	-0.434	0.016*	0.138	0.466
LEI	0.624	<0.001*	0.143	0.450	0.421	0.020*	-0.343	0.063	0.134	0.480
PASI	0.118	0.534	0.377	0.040*	0.012	0.949	-0.317	0.088	0.202	0.284
PhGA (0 – 100 mm)	0.184	0.331	0.286	0.125	0.300	0.107	0.015	0.939	0.176	0.353
DAPSA	0.634	<0.001*	0.510	0.004*	0.400	0.029*	-0.464	0.010*	0.327	0.078
PASDAS	0.521	0.003*	0.424	0.019*	0.296	0.112	-0.180	0.340	0.361	0.050
CPDI	0.367	0.046*	0.238	0.206	0.246	0.189	-0.318	0.087	0.328	0.077

Table 2: Correlation between pain parameters with scores of disease activity (n = 30)

Pain parameters / Lab. & US findings	Manual tender point count		WPI		Pain detect questionnaire		STR		Pain NRS (0 – 10)	
	r_s	p	r_s	p	r_s	P	r_s	p	r_s	p
CRP (mg/L)	0.129	0.497	0.413	0.023*	0.119	0.533	-0.149	0.433	0.037	0.845
1st hour ESR (mm/hr.)#	-0.196	0.382	-0.041	0.857	0.254	0.254	0.148	0.511	0.527	0.012*
PsASon13 US	0.169	0.372	0.355	0.055	0.005	0.980	0.280	0.134	-0.029	0.878

CONCLUSION

- Pain intensity is not essentially expressing the inflammatory disease activity of PsA. Pain detect questionnaire can be a useful tool to detect neuropathic component of pain.

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