Methods: In total, ninety-four patients with PsA, who fulfilled the disease criteria (CASPAR) were examined using standard diagnostic methods (including C-reactive protein, lipid profile). The QRISK-3 and SCORE scales were used to assess the 10-year risk of CVD.

Results: Intermediate (12.4 ± 0.75 %) risk of adverse cardiovascular events within the next 10 years was estimated for PsA patients and it was 7 to 8 – fold higher than the Q – score of a healthy age, sex, and ethnicity – matched subjects. Using classical SCORE, the risk was estimated as low (1.9 ± 0.24 %). Healthy Heart Age was about 25 % higher than predicted as assessed by QRISK.

Conclusion: The Q-risk Scale considers not only classical of such risk factors as age, sex, smoking, systolic blood pressure, total cholesterol (which used SCORE) but also index of atherogenicity, BMI, family history of coronary artery disease, treatment with antihypertensive drugs and glucocorticosteroids, comorbidity, systemic inflammatory disease and can be used for different age groups and ethnicity.

Q-risk scale appears to be adaptive and informative in patients with chronic inflammatory and autoimmune diseases as compared with SCORE, because it uses mostly all important etiological and trigger factors of CVD especially presence autoimmune inflammatory process in our case.

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AB0568

CORRELATION BETWEEN SKIN AND JOINT INVOLVEMENT IN PATIENTS WITH PSORIATIC ARTHRITIS: EXPERIENCE FROM A THIRD LEVEL HOSPITAL

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Background: Determining the relationship between severity of skin and joint disease is essential for better phenotyping of patients and determine whether clinical features of arthritis can associate with psoriasis.

Objectives: To characterize the relationship between skin and joint activity in patients with psoriatic arthritis (PsA) and psoriasis (PsO) at enrolment.

Methods: We performed a retrospective and descriptive study including patients diagnosed with PsA with a history of PsO. Age, sex, disease onset and duration, pattern of PsA and PsO, sites of skin and joint involvement were collected. PsA patients were evaluated at enrolment for skin activity by Psoriasis Area and Severity Index (PASI), joint activity by Disease Activity Score 28 (DAS28) for peripheral arthritis and Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) for axial involvement. A PASI>10% was used to define moderate-severe psoriasis (MS-P). We compared clinical characteristics of patients with PsA based on PASI score and evaluated the relationship of skin and joint activity with linear regression.

Results: A total of 50 patients were collected, 64% were women with a mean age of 57.4 ± 11.9 years. Patients with MS-P had a long-standing history of PsO (16.6 ± 7.9 vs 14.15 ± 8.2 years, $p = 0.03$) and arthritis (12.2 ± 7.6 vs 10.6 ± 7.6 years, $p = 0.05$). PsO was diagnosed more frequently before arthritis in the group of MS-P (73% vs 42%, $p = 0.03$). Nail (73% vs 34%, OR 4.27 (1.38-20.14), $p = 0.015$) and hairline psoriasis (67% vs 29%, OR 5 (1.36-18.35), $p = 0.03$) were more frequent in the group of MS-P. Polyarthritis was the most common clinical pattern (60% vs 26%, $p = 0.02$) and peripheral arthritis, in shoulder, elbows and wrists was more associated to patients with MS-P. No significant difference regarding sex, age, arthritis onset, dactylitis, enthesitis or HLA-B27 was found. Patients with MS-P had a higher joint activity for peripheral arthritis (4.1 vs 2.44, $p = 0.02$). The correlation between the skin and joint activity was positive and statistically significant $r = 0.568$ ($p = 0.02$), (graph 1).

Conclusion: Patients with PsA with MS-P associate nail and hairline psoriasis, polyarthritis, and peripheral joint involvement more often. Cutaneous disease activity is correlated with joint activity. Collaboration between dermatologists and rheumatologists is recommended for a proper assessment of psoriatic arthritis with skin involvement.

Graph 1. Correlation between skin and joint activity

Table 1. Demographic and clinical characteristics of 50 patients

	PASI <10% N = 35	PASI > 10% N=15	OR 95%IC	P value
Age	54.4 ±10.4	53.9 ±12.9	-	0.86
Female	63%	73%	0.62 (0.16-2.34)	0.53
Duration of psoriasis	14.15 ±8.2	16.6±7.9	-	0.03
Duration of arthritis	10.6 ±7.4	12.2 ±7.6	-	0.05
Psoriasis onset	42%	73%	3.67 (1.97-13.8)	0.03
Arthritis onset	17%	20%	1.21 (0.26-5.64)	1
Nail psoriasis	34%	73%	4.27 (1.38-20.14)	0.015
Hair line	29%	67%	5 (1.36-18.35)	0.03
Enthesitis	14%	13%	1.08 (0.19-6.32)	0.96
Dactylitis	20%	33%	0.5 (0.13-0.96)	0.47
HLA B27	34%	13%	3.39 (0.66-17.56)	0.18
Type of arthritis				
Axial	26%	13%	0.44 (0.08-2.36)	0.47
Peripheral	42.8%	73%	6.88 (1.77-26.76)	0.05
Both	31%	13%	0.34 (0.06-1.75)	0.29
Joint involvement				
Back	14%	20%	0.67 (0.14-3.24)	0.68
Shoulders	17%	53%	5.52 (1.44-21.14)	0.02
Elbows	5.7%	33%	8.25 (1.38-49.21)	0.02
Wrists	31%	73%	6 (1.56-23.11)	0.01
Fingers	54%	60%	1.26 (0.37-4.32)	0.77
Knees	29%	47%	2.19 (0.63-7.65)	0.33
Ankles	40%	60%	2.25 (0.65-7.73)	0.22
Toes	46%	53%	1.36 (0.4-4.56)	0.76
Articular pattern				
Polyarthritis	26%	60%	4.33 (1.2-15.61)	0.02
Asymmetric oligoarthritis	29%	27%	0.91 (0.23-3.54)	1
DIP involvement	14.3%	13.3%	0.92 (0.16-5.39)	1
Spondyloarthritis	11.4%	13.3%	1.19 (0.19-7.33)	1
Arthritis mutilans	-	-	-	-
DAS28	2.44 ±0.95	4.1±1.2	-	0.02

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AB0569

PSORIATIC ARTHRITIS, ALLIED DISEASES AND MORTALITY - A POSTMORTEM CLINICOPATHOLOGIC STUDY OF 12 PATIENTS

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Background: Psoriasis (P) may be complicated by psoriatic arthritis (psoriatic arthropathy (PsA), in 15 % of psoriatic patients [1]. The risk of mortality is increased in PsA outpatients compared to the general population [2].

Objectives: The aim of this study was to determine the mortality of PsA or associated diseases in an in-patient autopsy population.

Methods: At the National Institute of Rheumatology 11860 patients died between 1968 and 1998; among them 12 patients with PsA (females 6, mean age of 68.17 years, range 86 – 52, onset of PsA 53.60, average duration of PsA 15.40 years; males 6, mean age of 62.83 years, range 82 – 33, onset of PsA 46.67, average duration of PsA 3.67 years). All patients were autopsied.

The basic disease, complication(s), and cause of death were determined by a detailed review of extensive histological material, all the available clinical and pathological reports retrospectively. From each patient a total of 50-100 tissue blocks of 16 organs were studied microscopically.

PsA was confirmed clinically according to the criteria of the ACR updated by Sukfa (2019) [1].

Results: The cause of death was related to PsA only in one (8.33 %) of 12 patients; a 33 year old man who died of pulmonary embolism after synovectomy. In 11 (91.66 %) of 12 PsA patients the cause of death was related to allied diseases namely atherosclerosis (Ath) in 9 (75 %), tuberculosis complicated by miliary dissemination (TB- mTB) in 1 (8.33 %), and alcoholic cirrhosis (AC) in 1 (8.33 %). Ath was complicated by hypertension (HT) and adult type diabetes mellitus (DM) in 4, was associated with TB in 1 and with AC in 1 of 9 patients; HT and DM were present in one PsA patient without Ath (Table 1).

AA amyloidosis (AAa) complicated PsA in 2 (16.66 %) of 12 PsA patients; in one case due to the long standing and severe inflammation of PsA, and in the other case the AAa was associated with TB and mTB.

Table 1.

P-PsA Basic disease (leading to death)	Complication(s)	Cause of death
1 P-PsA Ath, TB	Adhesive pericarditis and pleuritis	Circulatory failure
2 P-PsA Ath-HT-DM	Postoperative complication	Pulmonary embolism
3 P-PsA Ath-HT-DM	Brain necrosis, Pulmonary embolism	Circulatory failure
4 P-PsA Ath	Purulent bronchitis-Bronchopneumonia	Circulatory failure
5 P-PsA TB-mTB	AAa, Arosion bronchial artery	Massive bronchial bleeding
6 P-PsA Ath	AAa, Coronary artery thrombosis	Myocardial infarction
7 P-PsA	Synovectomy	Pulmonary embolism
8 P-PsA Ath-HT-DM	Coronary artery thrombosis	Myocardial infarction
9 P-PsA Ath	Myocardial fibrosis	Circulatory failure
10 P-PsA Ath, Alcoholic cirrhosis	Ascites, Purulent bronchitis	Circulatory failure
11 P-PsA Alcoholic cirrhosis, HT-DM	Ascites	Hepatorenal syndrome
12 P-PsA Ath-HT-DM	Myocardial fibrosis	Circulatory failure

Conclusion: In our autopsy population Ath (with or without HT and DM) was the most important basic disease leading to circulatory failure and death of PsA patients. Diseases of the circulatory system were also the most common cause of death in Wong's outpatient PsA population as well [2].

PsA is not a mild disease, but is not a life-threatening complication of P, however in association with Ath, HT, DM or TB it may increase mortality, as was also found by Arumugam and McHugh (2012): 'the mortality of PsA may be increased in a more severe disease' [3].

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AB0570

BONE MINERAL DENSITY, TRABECULAR BONE SCORE AND PROXIMAL FEMUR 3D-DXA ANALYSIS IN PSORIATIC DISEASES

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Background: current data regarding areal bone mineral density (aBMD) in patients with psoriasis (PsO) or psoriatic arthritis (PsA) are conflicting. Results on Trabecular Bone Score (TBS) in these patients are lacking. 3D-analysis of cortical and trabecular bone from hip DXA is a new method for non-invasive bone structure assessment, providing separate assessment of the cortical layer and trabecular macrostructure.

Objectives: Case-control study (NCT02849795)

Methods: 52 PsO and 52 PsA cases (CASPAR criteria) were each paired to a control subject matched for age, sex and body mass index (BMI). aBMD measurements at (L2-4) lumbar spine (LS), femoral neck (FN) and total hip (TH) were performed using DXA, Lunar GE. TBS was calculated from antero-posterior L2-L4 BMD image using TBS iNsight V1.8 (Med-Imaps, Pessac, France). 3D-SHAPER software (version 2.10, Galgo Medical S.L., Barcelona, Spain) was used to derive a 3D analysis from the hip DXA scans.

Results: LS and TH aBMD measurements did not differ between patients with PsO or PsA and their respective controls (Table 1). Left FN BMD was higher in patients with PsO compared to controls (p = 0.028), a difference not observed on the right FN. TBS was similar in PsA patients and their controls while decreased values were observed in PsO patients (p = 0.04). In 3D analysis, none of the parameters differed between patients with PsA and their controls. For patients with PsO, no difference was found with the controls for 3D-DXA parameters from the right FN, while total hip cortical surface BMD (sBMD) of the left FN was higher in PsO compared to their controls (p = 0.037). Similarly, cortical thickness (Cth) of the intertrochanteric and shaft regions of the left FN was also higher in PsO (p = 0.032 and p = 0.033). Finally, analysis by region (neck, intertrochanteric and shaft) showed higher values for cortical sBMD from each region of the left FN in the patients with PsO (all p < 0.05).

Conclusion: Our results showed comparable aBMD, TBS and 3D proximal femur parameters in patients with PsA and controls. This supports that PsA population is not at increased risk of osteoporosis. In patients with PsO, while LS bone microarchitecture seems impaired, FN displayed better cortical parameters than the controls. Although these results seem marginal, they support the fact that patients with PsO are not at high risk for osteoporosis and hip fracture.

Table 1. PsA: psoriatic arthritis; PsO: psoriasis; M: male; F: female; BMI: body mass index; PASI: psoriasis area severity index; CPDAI: composite psoriatic disease activity index; ESR: erythrocyte sedimentation rate; CRP: C-reactive protein; aBMD: areal bone mineral density; LS: lumbar spine; FN: femoral neck; TH: total hip; TBS: trabecular bone score; sBMD: surface bone mineral density; Cth: cortical thickness; quantitative data are mean ± standard deviation; * and ***: paired t test comparing patients with psoriatic arthritis or psoriasis alone to their respective controls; * p < 0.05; *** p < 0.001.

	PsA	PsA controls	PsO	PsO controls
N	52	52	52	52
Age (years)	52.5 ± 11.7	52.8 ± 11.1	50.5 ± 12.8	50.7 ± 12.8
Sex (M/F)	25/27	25/27	38/14	36/16
Menopausal women	18 (67%)	16 (59%)	5 (36%)	8 (50%)
BMI (Kg/m²)	27.4 ± 5.9	27.7 ± 6.4	28.4 ± 5.8	28.2 ± 6.1
PASI	7.4 ± 4.1		8.4 ± 4.9	
CPDAI	2.4 ± 3.3			
ESR (mm/h)	19.8 ± 16.6	6.9 ± 5.8	10.7 ± 8.8 ***	6.4 ± 6.4
CRP (mg/L)	10.5 ± 11.7 ***	3.9 ± 4.8	6.0 ± 9.0	4.7 ± 5.5
LS (L2-4) aBMD (g/cm²)	1.27 ± 0.49	1.20 ± 0.20	1.25 ± 0.21	1.20 ± 0.18
FN aBMD (g/cm²)				
right	0.96 ± 0.12	0.94 ± 0.14	0.98 ± 0.15	0.98 ± 0.15
left	0.96 ± 0.16		1.0 ± 0.14 *	
		0.93 ± 0.12		0.97 ± 0.13
TH aBMD (g/cm²)	1.01 ± 0.16	1.00 ± 0.15	1.11 ± 0.22	1.06 ± 0.21
L2-L4 TBS	1.32 ± 0.11	1.32 ± 0.15	1.23 ± 0.15 *	1.30 ± 0.16
Cortical sBMD (left FN) (mg/cm²)	169.7 ± 32.8	163.1 ± 29.7	182.0 ± 31.0 *	173.5 ± 30.3
Cth intertrochanteric (left FN) (mm)	1.91 ± 0.20	1.94 ± 0.18	2.03 ± 0.23 *	1.97 ± 0.19
Cth shaft (left FN) (mm)	2.98 ± 0.31	3.01 ± 0.28	3.19 ± 0.36 *	3.09 ± 0.29
Cortical sBMD (left FN) (mg/cm²)				
neck	135.27 ± 26.9	129.67 ± 21.9	140.29 ± 24.2 *	134.6 ± 22.5
intertrochanteric	162.32 ± 31.1	155.34 ± 29.3	171.39 ± 29.1 *	163.1 ± 28.9
shaft cort	269.20 ± 49.0	257.12 ± 47.3	286.2 ± 47.5 *	272.7 ± 45.2

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