

Gender differences in PsA outcome parameters and their correlation with skin involvement: a cross-sectional analysis of RABBIT-SpA patients

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Background

PsA is a complex disease characterised by a heterogeneous pattern including different clinical symptoms of musculoskeletal (MSK) inflammation like arthritis, enthesitis, dactylitis and axial involvement as well as skin and nail involvement. There are differences in these disease patterns between female and male patients which need to be taken into account.

Objective

The **aim** was to assess differences between female and male patients in several outcome parameters and to correlate the extent of skin disease with established outcomes.

Patients and Methods

Patients from the Rabbit-SpA cohort study with PsA and a questionnaire at baseline were used to analyse gender differences for

- body surface area (BSA),
- tender joint count (TJC), swollen joint count (SJC),
- physician disease activity scores (global (physGA), skin (physSk) and musculoskeletal assessment (physMSK)),
- DAPSA and DAS28 and
- patient reported outcomes (PROs).

Spearman correlation coefficient was calculated to analyse the relationship between BSA and outcome parameters.

Results

Among 795 included patients, 59% were female and 41% were male.

	Women (n=471)	Men (n=324)	Total (n=795)
Age (yrs)	52.8 (11.8)	50.1 (12.1)	51.7 (12)
Disease duration skin (yrs)	15 (14.9)	12.6 (12.4)	14 (14)
Disease duration joints (yrs)	7.1 (7.8)	5.7 (7)	6.5 (7.5)
Nail psoriasis, n (%)	174 (37)	163 (51)	337 (43)
BMI obese, n (%)	185 (40)	105 (33)	290 (37)
≥3 comorbidities, n (%)	103 (22)	55 (17)	158 (20)

Table 1: Baseline characteristics by gender, given as mean (SD)

Results

- Men had a significantly higher BSA and PhysSk than women, but skin assessment by patient (PatSK) does not differ between men and women.
- Women had significantly higher joint involvement as measured by TJC, DAPSA, DAS28, PhysMSK and patient musculoskeletal assessment (PatMSK).
- Impact of disease as measured by PSAID and patient global assessment (PatGA) was more severe in women than in men.
- Physical function (HAQ) was lower in women than in men.
- Despite the higher skin involvement in men, the DLQI was equally high in women and men with more than 50% of patients in reduced quality of life.

	Women (n=471)	Men (n=324)	Total (n=795)
BSA (0-100)	6.7 (13)	10.6 (16.1)	8.3 (14.4)
SJC (0-66)	3.4 (4.9)	2.7 (3.9)	3.1 (4.5)
TJC (0-68)	7.7 (8.6)	5.8 (7.1)	6.9 (8.1)
PhysGA (NRS 0-10)	5.3 (1.8)	5.2 (2)	5.3 (1.9)
PhysSk (NRS 0-10)	3.1 (2.6)	3.7 (2.6)	3.4 (2.6)
PhysMSK (NRS 0-10)	5.2 (2.1)	4.9 (2.3)	5.1 (2.2)
DAPSA	23.9 (13.6)	20.2 (12.4)	22.3 (13.2)
DAS28-CRP (2-10)	3.7 (1.2)	3.4 (1.2)	3.6 (1.2)
DLQI (0-30)	6 (6.6)	5.3 (5.6)	5.7 (6.2)
HAQ (0-3)	1.1 (0.7)	0.7 (0.6)	0.9 (0.7)
PSAID (0-10)	4.7 (2.3)	3.9 (2.1)	4.3 (2.3)
PatGA (NRS 0-10)	5.9 (2.3)	5.3 (2.5)	5.6 (2.4)
PatSk (NRS 0-10)	3.8 (3.1)	4 (2.8)	3.9 (3)
PatMSK (NRS 0-10)	5.8 (2.3)	5 (2.5)	5.5 (2.4)

Table 2: Outcome parameter by gender, given as mean (SD)

Conclusions

- ✓ Women and men show differences in many PsA criteria.
- ✓ Men have a more severe skin involvement, while women have a higher joint involvement.
- ✓ Women show higher values in patient reported outcomes except for the skin specific parameters.
- ✓ Although skin involvement is not correlated with most PsA activity parameters, 50% of the patients are negatively affected in their quality of life.

Results

- BSA was not correlated with SJC, TJC, DAPSA, DAS28, physMSK, patGA and patMSK neither in men nor in women.
- BSA was positively correlated with DLQI (fig. 1), patSK, physSK and physGA (fig. 2) in both genders.

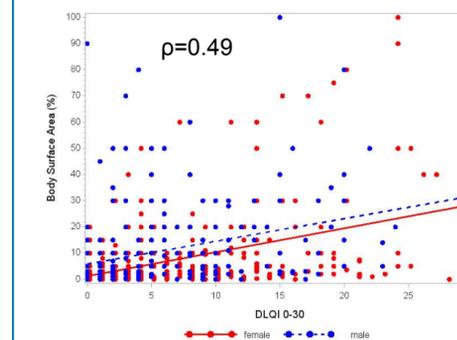


Figure 1: Correlation BSA vs. DLQI

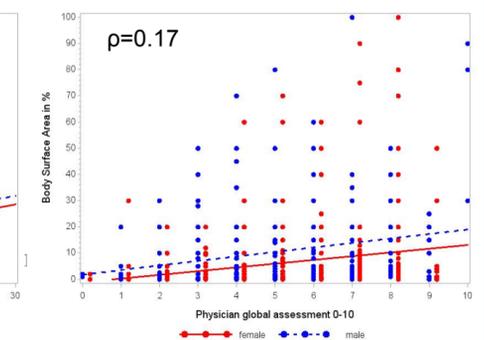


Figure 2: Correlation BSA vs. PhysGA

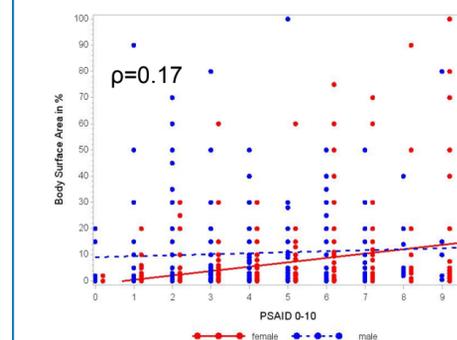


Figure 3: Correlation BSA vs. PSAID

BSA was correlated with PSAID for women ($p=0.26$) but not for men ($p=0.12$) (fig.3).

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