Clinical and demographic factors influence on anxiety and depression in early psoriatic arthritis (ePsA)

Sirs,

The poor mental functioning in psoriatic arthritis (PsA) (1) was previously related to psoriasis (2) and, even if studied in a recent large cohort (3), was not investigated in correlation to all heterogeneous aspects of disease.

The aims of our study were to screen mood disorders in early psoriatic arthritis (ePsA) patients (with duration of symptoms <1 year), to compare them to late PsA (>10 years), spondyloarthropathies (SpA) and healthy controls and to correlate them with PsA clinical-demographic variables.

In 2008-2009, 100 ePsA diagnosed with CASPAR Criteria (4), attending the University of Florence "ePsA clinic" were investigated using the Hospital Anxiety and Depression scale (HADS) (0–21 range) that is a screening tool for anxiety (HADS-A) and depression (HAD-D) (5), used as guide for further psychiatric examination (cut off >8 and >11 indicate "possible" and "probable" stress, respectively), and compared to 50 healthy controls from hospital staff, 50 late PsA and 50 other SpA, matched for age, sex and body mass index (BMI).

ePsA patients data were collected: age, BMI, marriage, work, duration of symptoms, morning stiffness, fatigue and pain visual analogue scale (VAS) 0-100, Bath Ankylosing Disease activity Index (BASDAI), Bath Ankylosing Spondylitis Functional index (BASFI), 68/66 joint count, dactylitis, sacral sulcus tenderness, Bath Ankylosing Spondylitis Metrology Index (BASMI), Maastricht Ankylosing Spondylitis Enthesitis Index (MASES), Psoriasis Area and Severity Index (PASI) and cosmetic dermatological involvement (face/hands).

Differences and correlation of HADS between different clinical-demographic factors were evaluated using the non-parametric Mann-Whitney test and multiple regression analysis, respectively. MASES and PASI (0 and >0) were rescored with chi-square test, *vs*. HADS cut off >8.

29% and 26% of ePsA patients were suggestive for a "possible" anxiety and depression, respectively (HADS> 8); 14% had a "probability" to develop anxiety and 11% depression (HADS>11). The other results are shown in Table I: HADS was higher in ePsA than in healthy controls ($p<0.001$) and similar to late PsA and SpA; only anxiety was higher in female ($p<0.05$), but was not linked to other demographic variables; HADS correlated only with BASDAI (HADS-D $p<0.05$, HADS-A $p<0.0001$) and pain ($p<0.01$); no differences were found between HADS </>8 and PASI-MASES 0 and >0.

Thus, also in the early phase, PsA has an strong possibility to develop anxiety and depression, in agreement with a previous study on early rheumatoid arthritis that concluded that a regular psychiatric screening assessment by rheumatology staff might improve awareness and early identification of mood disorders (6).

In our study, the psychological stress seemed to be mostly conditioned by pain and BASDAI (that included pain as parameter), and not to be a direct consequence of functional impairment (BASMI and BASFI) or demographic aspects, as shown in chronic disease (7-8). In fact, the lower impact in early disease of axial involvement and of loss of work, might suggest that other underlying mechanisms should be considered. An interference of patient initial perception to have a chronic illness was hypothesised (9) and also a fascinating theory postulated a possible link between inflammatory cytokines and neuronal impairment (10). Probably, a larger cohort and deeper psychiatric investigations might be conducted in the future to better elucidate this datum.

Furthermore, we verified that HADS is independent of PASI, even if previous results have shown that psoriasis strongly correlated with reduced mental performance (1).

However, our patients did not present a severe dermatological involvement neither cosmetic involvement on face (2).

In conclusion, depression and anxiety risk might be high in early phase of PsA, mainly influenced by pain and independent of functional impairment, demographic variables and psoriasis.

Table I. Differences of HADS values and demographic features between ePsA patients and controls (healthy-late Psa-SpA) and correlation of ePsA HADS with demographic and clinical variables.

Differences of ePsA and controls (healthy-late Psa- SpA) HADS values and demographic features

	ePsA	Healthy controls		Late PsA		SpA	
	Mean (±SD)	Mean (±SD)	*p*	Mean (±SD)	*p*	Mean (±SD)	*p*
HADS-A	6.43 ± 4.16	0.6 ± 0.5	$p<0.001$	7.7 ± 5	NS	7.5 ± 4.3	NS
HADS-D	5.37 ± 4.32	0.7 ± 0.4	$p<0.001$	6.5 ± 4.4	NS	5.62 ± 3.4	NS
Age	51.6 ± 15.3	49.7 ± 11.2	Ns	54.4 ± 14.1	NS	51 ± 13.8	NS
BMI	22 ± 2	24 ± 2.1	Ns	23 ± 2	NS	24 ± 2.3	NS
Sex	53 F: 47 M	27 F: 23M	–	27 F: 23M	–	26 F: 24 M	–

HADS correlation with ePsA demographic and clinical variables

	Mean (±SD) and/or percentage	HADS-A	HADS-D
Marriage	68%	NS	NS
Work	57%	NS	NS
Duration of symptoms	7.4±4.1 months	NS	NS
Morning stiffness	30±45 minutes (> 0: 72%)	NS	NS
BASFI (0–10)	1.7±2.1 (> 0: 81%)	NS	$p<0.05$
BASDAI (0–10)	3.7±2.7 (> 0: 93%)	$p<0.0001$	$p<0.05$
PAIN VAS (0–100)	61.7±32.1 (> 0: 90%)	$p<0.01$	$p<0.01$
FATIGUE VAS (0–100)	47.8±38 (> 0: 72%)	NS	NS
Psoriasis	76%	NS	NS
Dactilitis	15%	NS	NS
Cosmetic psoriasis involvement (face and hands)	89.4% (not face; only hands)	NS	NS
PASI (0–72)	4±7.1 (> 10: 11.8%)	NS	NS
Total Joint count (66+68)	2.7±3 (> 0: 47%) (swollen 0.5±1 and tender 2.1±2)	NS	NS
Sacroiliac pain	0.5 ±0.8 (> 0: 33%)	NS	NS
MASES (0–13)	2±2.3 (> 0: 64%)	NS	NS
BASMI (0–10)	0.6±0.9 (> 0: 51%)	NS	NS

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