Autoinflammatory Disease Damage Index (ADDI): a possible newborn also in hidradenitis suppurativa daily practice

To the Editor:

Ter Haar *et al*[1] report a new tool, Autoinflammatory Disease Damage Index (ADDI), to measure damage caused by autoinflammatory diseases. Although this preliminary instrument was for patients with familial Mediterranean fever, cryopyrin associated periodic syndrome, tumour necrosis factor receptor-associated periodic fever syndrome and mevalonate kinase deficiency, we found a great utility also in another auto inflammatory disease (AD), namely hidradenitis suppurativa (HS). HS is a chronic–relapsing, debilitating autoinflammatory disease affecting apocrine gland-bearing skin which is estimated to affect 1% of the population.[2] It is occasionally inscribed into more complex autoinflammatory syndromes, such as PASH (pyoderma gangrenosum, acne and HS), or concurrent with other dysimmune conditions such as Crohn's disease.[3] HS severity is variously assessed by static scores, such as Hurley's or Canoui-Poitrine, or dynamic ones, such as modified Sartorius' score.[4] However, no scores are still present to quantify the persisting systemic damage caused by chronic inflammation in HS, thus we preliminarily adopted ADDI for our cohort of 47 cases of severe Hurley III HS. Interestingly, our patients manifested characteristically high scores for musculoskeletal (97.87%), reproductive (46.8%), developmental (38.3%), ocular (23.4%), renal/amyloidosis (25.53%), neurological (17.15%), serosal (6.38%) and ears (2.13%) items (table 1). Cognitive impairment was calculated as positive if IQ<80 as defined by neuropsychological assessment, namely Wechsler Intelligence Scale for Adults IV, or if Mini-Mental State Examination resulted in a score of <23. Despite the limited number of patients assessed, ADDI may be a promising tool to evaluate the long-term systemic outcome in HS also. Prospective validation in longitudinal studies is needed to validate ADDI also for HS in daily practice.

Table 1 Demographic and clinical data, including ADDI, are summarized in the table.

	HS patients group (n=47)	Percentage (%)
Age ($\mu\pm\sigma$)	39,64±15,16	x
Sex *(male/female)*	25/22	53,19/46,81
Body Mass index(BMI) ($\mu\pm\sigma$ *kg/m*^{2})	28,68±3,21	x
Disease duration ($\mu\pm\sigma$ *years*)	7,27±4,98	x
Hurley stage III	47	100
HS-Sonografic scoring (SOS) stage III	47	100
HS- Physician Global Assessment (PGA)		
Clear:	0	0
Minimal:	0	0
Mild:	0	0
Moderate:	5	10,64
Severe:	24	51,06
Very severe:	18	38,3
Dermatological Life Quality Index (DLQI) ($\mu\pm\sigma$)	22,83±3,13	x

Autoinflammatory disease damage index (ADDI) items	HS patients	Percentage (%)
Reproductive	22	46,80
Sub/infertility	17	36,17
Amenorrhoea	5	10,64
Renal/amyloidosis	12	25,53
Amyloidosis		
Limited	0	0
Extended	2	4,26
Proteinuria	7	14,89
Renal insufficiency		
Moderate renal insufficiency	2	4,26
Severe renal insufficiency	1	2,13
Developmental	18	38,3
Growth failure	3	6,38
Puberty delay	15	31,91
Serosal	3	6,38
Serosal scarring	3	6,38
Neurological	9	19,15
Developmental delay	0	0
Cognitive impairment*	9	19,15
Elevated intracranial pressure	0	0
Central nervous system involvement	0	0
Ears	1	2,13
Hearing loss		
Moderate hear loss of better ear	1	2,13
Severe hear loss of better ear	0	0
Ocular	11	23,40
Ocular involvement		
Mild ocular involvement of better eye	3	6,38
Moderate ocular involvement of better eye	5	10,64
Severe ocular involvement of better eye	3	6,38
Musculoskeletal	46	97,87
Joint restriction	12	25,53
Bone deformity	6	12,77
Osteoporosis	20	42,55
Musculoskeletal pain	44	93,62
ADDI Points ($\mu\pm\sigma$)	7,27±4,98	x
Autoimmune/Autoinflammatory comorbidities	12 Chron's disease: 6 Pyoderma gangrenosum: 2 Spondyloarthropathy :2 Psoriasis: 1 Hashimoto's thyroiditis: 1	25,53

* Cognitive impairment was calculated as positive if IQ<80 as defined by neuropsychological assessment, namely Wechsler Intelligence Scale for Adults (WAIS) IV, or if Mini-Mental State Examination (MMSE) results in a score<23.

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