



Clinical efficacy of biologic therapy in patients with psoriasis (Ps), psoriatic arthritis (PsA) and ankylosing spondylitis (AS) with morbid obesity (BMI > 44.6): descriptive study based on three cases assessed in a multidisciplinary consultation of Rheumatology and Dermatology.



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Background: It is well-known that obesity is a cardiovascular risk factor and, moreover, constitute a risk for the development of Ps and spondyloarthritis (SpA) by itself. These entities are characterized by an increased in plasmatic cytokines levels which causes a proinflammatory chronic condition. In addition, obesity is a not response and low adherence predictor to therapy. Obesity determine the dose of some drugs and, therefore, modify the response. It is commonly accepted that when body mass index (BMI) is over 40 it is classify as morbid obesity, implying a development of comorbidities.

Objectives: Description of our experience about the efficacy of Secukinumab (IL17 inhibitor) in three patients with Ps, PsA and axial SpA (axSpA), respectively, which had concomitant morbid obesity.

Methods: Descriptive and retrospective study with 3 patients assessed in a multidisciplinary consultation of Rheumatology and Dermatology. We reviewed the medical history of each patient assessed in 2017 for 52 weeks. Every patient received secukinumab 300 mg by subcutaneous injection every month (previously administred induction doses). We recorded the baseline demographic data, Psoriasis Area Severity Index (PASI), Disease Activity score (DAS28), C reactive protein (CRP), Visual Analog Scale for Pain (VASP). PASI in Ps was assessed by a Dermatologist and the activity index, DAS28-CRP for PsA, and BASDAI (Bath Ankylosing Spondylitis Disease Activity Index) and ASDAS-CRP (Ankylosing Spondylitis Disease Activity Score) for SpA, were caculated by a Rheumatologist. Serum biochemical variables were evaluated, including acute phase reactants: CRP and ESR (erythrocyte sedimentation rate). We reviewed baseline data (0 week) and follow-up data at 16, 48 and 52 weeks.

Results: The mean BMI was 44.67 and the mean age 49. The mean weight was 123.6 kg. The patients with cutaneous involvement had an initial PASI of 22.7 (PsA) and 11.9 (Ps); in weeks 16 and 48 PASI was 0.0 in both patients and in 52 week of 0.2 and 0.8 respectively. In the patient with APs, the baseline DAS28-PCR was 5.96, at 16 weeks 4.1 and at 48 weeks 3.7. In relation to the patient with axSpA, baseline BASDAI and ASDAS-PCR were 5.4 and 3.8 respectively. At 16 weeks 3.6 and 2.8 and at 48 weeks 2.5 and 1.9 respectively. Two patients showed a significant improvement in CRP after switching to Secukinumab. VASP improved progressively in patients with PsA and axSpA, from a baseline mean of 10 to 3 at the end of follow-up.

	sex	age	weight	size	BMI	DMARDb previous	DMARDs
PsA	F	49	118	159	46,68	N/A	MTX
Ps	F	46	116	165	42,6	ETN	MTX
axSpA	M	52	145	180	44,75	ADA	SSZ
		49	126,3	168	44,67		

PASI	sex	Week 0		Week 16		Week 48		Week 52	
		PASI	PCR	PASI	PCR	PASI	PCR	PASI	PCR
PsA	F	22,7	1,4	0	1,3	0	1,3	0,2	0,6
Ps	F	11,9	8,5	0	8,4	0	11	0,8	8,1
axSpA	M	N/A	12,2	N/A	6,8	N/A	3,4	N/A	N/A

	sex	week 0				week 16				week 48			
		DAS28/PCR	BASDAI	ASDAS PCR	EVAp	DAS28/PCR	BASDAI	ASDAS PCR	EVAp	DAS28/PCR	BASDAI	ASDAS PCR	EVAp
PsA	F	5,96	N/A	N/A	10	4,1	N/A	N/A	5	3,7	N/A	N/A	3
axSpA	M	N/A	5,4	3,8	10	N/A	3,6	2,8	4	N/A	2,5	1,9	3

Conclusions: this study has several limitations, being the most important that is a descriptive study. The sample is very low and the follow-up time is brief, but in our sample secukinumab was effective a has a safety profile, in spite of morbid obesity is a poor response predictor.