Factors that could influence our choice for initiation of apremilast or methotrexate for psoriasis

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BACKGROUND

Systemic treatments for psoriasis are used for decades. A new class of treatment (apremilast, phosphodiesterase 4 inhibitor) was commercialized in France in october 2016. Marketing authorizations for apremilast and methotrexate are almost similar (moderate to severe in plaque psoriasis with contraindication, intolerance or failure to other systemic therapies (phototherapy, retinoids, plus methotrexate and cyclosporine for apremilast) and choice of a treatment rather another depends on "personnal" factors: existence of psoriasis arthritis, comorbidities, experience, conflicts of interest… The aim of this study was to determine the patient's profile in whom treatment by apremilast or methotrexate was initiated for psoriasis.

MATERIAL AND METHODS

The IniBio2 study was a non-interventional, cross sectional, multicenter study. It was performed from January to March 2018. We consecutively included all adults (≥18 years) who consulted for psoriasis, and who was started methotrexate or apremilast for psoriasis between october 2016 (date of commercialization of apremilast in France) and January 2018.

IniBio 2 was performed in 19 French dermatology centers. The dermatological centers were members of the GEM Resopso.The 19 centers were within universities (n=1), general practice (n=12), military hospitals (n=1), and private practitioners (n=5). A protocol for evaluation was implemented that included information on age, gender, disease duration, clinical characteristics of psoriasis, severity of psoriasis (PGA), psoriasis arthritis, previous treatments for psoriasis, associated cardiovascular and metabolic comorbidities, current smoking status, history of depression. Severity of plaque psoriasis was graded as mild (PGA=0-2) or moderate-to-severe (PGA=3-5).

Table 1. Patients, psoriasis, comorbidities as parameters which could influence treatment choice

	All	Apremilast	Methotrexate	P value
	N= 579	N=290	N=289	
Place for prescription n (%)				
Hospital	434 (75)	220 (76,1)	214 (73,8)	0,51
Private practice	145 (25)	69 (23,9)	76 (26,2)	
Sex males n (%)	323 (57,2)	163 (57,8)	160 (56,5)	0,76
Age (y) mean +- SD	50,9 ± 15,6	54,7 ± 14,8	47,1 ± 15,2	<0,0001
Age of onset (y) mean +- SD	33,6 ± 16,3	35,3 ± 16,8	31,9 ± 15,6	0,02
Severity (PGA) n (%)				
0/2	77 (13.2)	42 (14.5)	35 (12.1)	0,28
3/5	476 (82.2)	230 (79.3)	246 (85.1)	
Psoriasis n (%)				
Plaque	455 (78.5)	217 (74.8)	228 (78.8)	0,77
Psoriasic arthritis	95 (18.6)	54 (22.1)	41 (15.5)	0,052
Previous treatment n (%)				
Phototherapy	288 (49,7)	159 (55,0)	129 (44,5)	0,01
Acitretin	187 (32,3)	118 (40,8)	69 (23,8)	<0,0001
Cyclosporin	60 (10,4)	29 (10,0)	31 (10,7)	0,77
Methotrexate	167 (28,8)	135 (46,7)	32 (11)	<0,0001
Apremilast	12 (2,1)	5 (1,7)	7 (2,4)	0,55
Etanercept	23 (4)	19 (6,6)	4 (1,4)	0,01
Infliximab	14 (2,4)	9 (3,1)	5 (1,7)	0,28
Adalimumab	21 (3,6)	16 (5,5)	5 (1,7)	0,01
Ustekinumab	20 (3,5)	17 (5,9)	3 (1,0)	0,001
Comorbidities n (%)				
Diabetis	65 (11,5)	34 (12,1)	31 (10,8)	0,77
Current smoking	156 (28,7)	73 (28,1)	83 (29,2)	0,77
Dyslipidemia	123 (21,8)	77(27,8)	46 (16)	0,0007
Depression	52 (9,5)	33 (12,6)	19 (6,7)	0,02
Hypertension	130 (22,7)	78 (27,7)	52 (17,9)	0,006
Cancer	60 (10,8)	43 (15,8)	17 (5,9)	0,0002
Cardiovascular disease	47 (8,3)	31 (11)	16 (5,7)	0,02
Chronic infection	21 (3,8)	13 (4,7)	8 (2,9)	0,26
BMI>30	120 (20.7)	66 (22.7)	54 (18.7)	0,12
Patient's preference for treatement	61 (11,1)	47 (17,4)	14 (5,0)	0,004

RESULTS

We included 575 patients. Sex ratio (M/F) was 1.26. (Table 1)

Univariate analyses showed that apremilast was used in older patients, with an older age of onset of psoriasis. Methotrexate was preferred for patients without any systemic treatment the 6 months before (p<0.001).. Patients with dyslipidemia (p=0.0007), hypertension (p=0.006), depression (p=0.02), cardiovascular disease (p=0.02), cancer (p=0.0002) and those who have been treated with phototherapy (p=0.01), acitretin (p<0.0001), methotrexate (p<0.0001), etanercept (p=0.01), adalimumab (p=0.01) and ustekinumab (p=0.001) received more frequently apremilast

Our multivariate analyses retained older age (p< 0,0001, OR 1.04 [1.02-1.05]), cancer (p=0.01, OR 2.34 [1.20-4.74]) and use of systemic treatment the 6 months before (p< 0,0001, OR 3.0 [1.96-4.66]) as significantly associated with the prescription of apremilast.

CONCLUSION

In our study, apremilast was initiated after failure of at least one systemic treatment and prefered for patients with history of cancer in which biologics were contra-indicated and for older patients often considered as fragile.