residual cancer rates of 42% in patients ≥60 years and 26% in patients <60 years ($P = .089$).[5] Although Swetter et al did not find age to be a risk factor, their veteran population was older, making comparisons less reliable.[4] They also found location to be a risk factor for residual tumor in nonmelanoma skin cancer, but they did not separate out SCC.[4] These differences in study parameters might explain the differences between our findings.

Overall, the insignificant difference in postbiopsy residual cancerous tissue rates between KAs and well-differentiated SCCs suggests management of these entities should be similar. Limitations of this study include its retrospective design, inability to assess tumors that were not excised, examination using vertical sectioning, and unknown biopsy type.

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A comparison of apremilast monotherapy and combination therapy for psoriatic arthritis in a real-life setting: Data from the Leeds Combined Psoriatic Service

To the Editor: Randomized controlled trials have shown that the phosphodiesterase-4 inhibitor apremilast is an effective and safe option in the treatment of psoriasis and psoriatic arthritis (PsA),[1] with real-world data now emerging from dermatology and rheumatology settings.[2-5] The Canadian multicenter retrospective study showed no increase in reported adverse events (AEs) when apremilast was used in monotherapy or in combination therapy with systemic drugs in patients with plaque psoriasis; the combination therapy group did not have superior efficacy, likely reflecting more resistant disease.[2] Such data is still sparse from the real-world experience in PsA patients.

In the first real-life report of apremilast 30 mg twice daily in active PsA, data were retrospectively reviewed in 71 patients at the tertiary Leeds Combined Psoriatic Service.[4] Herein, we report a subanalysis of the safety and response to therapy by treatment regimen. The proportions and means were compared by using Fisher's exact test and 2-tailed unpaired *t* test, respectively. Statistical analysis was performed with GraphPad Prism 7 (GraphPad Software, San Diego, CA), with P values ≤ .05 considered significant.

Clinical characteristics and AEs are reported in Table I and Table II, respectively. Of 71 PsA patients, 39 (54.9%) were on monotherapy and 32 (45.1%) on combination therapy (Table I). Subanalysis of the 2 groups showed no increased number of reported AEs when apremilast was used in monotherapy or in combination therapy with conventional or biologic disease-modifying antirheumatic drugs (DMARDS) (Table II), confirming the result of Ighani et al.[2] We did not perform a statistical analysis because of the small number of AEs. Unlike in randomized controlled trials[1] and the retrospective study of Ighani et al,[2] unwanted weight loss and upper respiratory tract infections were not reported in our experience (Table II).[4] Of the 51 patients with a mean follow-up of ≥6 months, in which we could assess the response to therapy,[4] 28 were on monotherapy and 23 were taking apremilast in combination with conventional (n = 16) or biologic (n = 5) DMARDs or both (n = 2). According to the response criteria,[4] a slightly greater proportion of monotherapy patients achieved response (monotherapy 64.3% [18/28] vs combination 56.5% [13/23]) but without a significant difference. As in the plaque psoriasis real-world

Table I. Clinical characteristics and treatment regimen of 71 psoriatic arthritis patients on apremilast

Characteristic	Monotherapy, 39 (54.9)	Combination therapy, 32 (45.1)	*P* value
Male sex, n (%)	16 (41.3)	17 (53.1)	.3
Age, years, mean (SD)	50.5 (2.3)	51.5 (2)	.7
Disease duration, years, mean (SD)	7.1 (6.3)	8.5 (6.6)	.3
Psoriasis, n (%)	33 (84.6)	26 (81.3)	.8
Time of follow-up, days, mean (SD)	182.5 (114.1)	160.5 (94.3)	.4
No. failed conventional DMARDs before apremilast, mean (SD)	1.6 (1)	1.1 (1.1)	.2
No. failed biologic DMARDs before apremilast, mean (SD)	1.2 (1.4)	1.6 (1.6)	.4
Failed DMARDs before apremilast, n (%)			
Methotrexate	31 (79.5)	20 (62.5)	.2
Sulfasalazine	22 (56.4)	3 (9.4)	<.0001
Hydroxychloroquine	7 (18)	5 (15.6)	>.9
Leflunomide	6 (15.4)	1 (3.1)	.06
Cyclosporine	5 (12.8)	0 (0)	.06
Certolizumab	0 (0)	3 (9.4)	.09
Golimumab	3 (7.7)	6 (18.8)	.3
Ustekinumab	2 (5.1)	3 (9.4)	.7
Adalimumab	13 (33.3)	17 (53.1)	.1
Etanercept	15 (38.5)	11 (34.4)	.8
Infliximab	5 (12.8)	6 (18.8)	.5
Secukinumab	0 (0)	0 (0)	-
Tocilizumab	1 (2.6)	0 (0)	-
Prior conventional DMARDs, patients, n (%)	38 (97.4)	29 (90.6)	.3
Prior biologic DMARDs, patients, n (%)	20 (51.3)	20 (70.7)	.1
Combination therapy, n (%)		32 (45.1)	
Dual		28 (39.4)	
Methotrexate	-	16 (22.5)	-
Sulfasalazine	-	1 (1.4)	-
Hydroxychloroquine	-	2 (2.8)	-
Leflunomide	-	1 (1.4)	-
Certolizumab	-	1 (1.4)	-
Golimumab	-	2 (2.8)	-
Ustekinumab	-	1 (1.4)	-
Adalimumab	-	1 (1.4)	-
Etanercept	-	1 (1.4)	-
Secukinumab	-	1 (1.4)	-
Tocilizumab	-	1 (1.4)	-
Triple		4 (5.6)	-
Methotrexate + sulfasalazine	-	1 (1.4)	-
Methotrexate + hydroxychloroquine	-	1 (1.4)	-
Methotrexate + certolizumab	-	1 (1.4)	-
Methotrexate + ustekinumab	-	1 (1.4)	-

Proportions were compared by using the Fisher's exact test. Means were compared using a 2-tailed unpaired *t* test.
DMARD, Disease-modifying antirheumatic drug; *SD*, standard deviation.

experience,[2] this finding might be explained by more difficult-to-treat PsA cases requiring additional drugs to control disease activity. When comparing number of previous DMARDs and disease duration, there was no difference between the monotherapy and combination therapy groups ($P > .05$).

In conclusion, the favorable safety profile of apremilast either in monotherapy or combination therapy makes it highly desirable in some clinical scenarios. Monotherapy could serve to control chronically active disease not responsive to previous conventional or biologic DMARDS or to treat patients with less severe joint and skin manifestations earlier who might not yet require a biologic DMARD.[4] The combination therapy could be used to reduce disease activity that is not adequately controlled with other treatments without increasing the risk for AEs.

Table II. Reported adverse events in psoriatic arthritis patients treated with apremilast in a real-world setting

Adverse event	Monotherapy, n = 39	Combination therapy, n = 32	All, n = 71	*P* value
Diarrhea	8 (20.5)	5 (15.6)	13 (18.3)	-
Nausea	7 (18)	2 (6.3)	9 (12.7)	-
Headache	6 (15.4)	2 (6.3)	8 (11.3)	-
Vomiting	2 (5.1)	1 (3)	3 (4.2)	-
General malaise	2 (5.1)	0 (0)	2 (2.8)	-
Depression	2 (5.1)	0 (0)	2 (2.8)	-
Suicidal ideation	1 (2.6)	0 (0)	1 (1.4)	-
Abdominal pain and loss of appetite	1 (2.6)	0 (0)	1 (1.4)	-
Adverse events per subject				-
0	22 (56.4)	22 (68.8)	44 (62)	-
1	5 (12.8)	5 (15.6)	10 (14.1)	-
2	5 (12.8)	3 (9.4)	8 (11.3)	-
3	4 (10.3)	2 (6.3)	6 (8.5)	-
≥4	3 (7.7)	0 (0)	3 (4.2)	-
No. adverse events per subject, mean (SD)	2.3 (1.1)	1.7 (0.8)	2.1 (1)	.15

Values are n (%) unless indicated otherwise. Mean numbers of reported adverse events per subject were compared by using a 2-tailed unpaired *t* test.
AE, Adverse event; *SD*, standard deviation.

In clinical practice, use of combination therapy, particularly with biologics, is currently limited by costs. Observational data from studies with larger sample sizes are needed to define the patient populations that might benefit from monotherapy and combination therapy and characterise specific AEs.

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