Combination Therapy of Apremilast and Biologic Agent As a Safe Option of Psoriatic Arthritis and Psoriasis

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INTRODUCTION

Psoriasis is a chronic immune-medicated inflammatory condition that affects 2-3% of the population , which is characterized by rash, silver scaling of the skin and can lead to psoriatic arthritis. There are multiple regimens for the treatment of psoriasis including disease- modifying anti rheumatics drugs (DMARDS) and biologic agent, phototherapy and apremilast. Apremilast is an oral phosphodiesterase inhibitor that has been approved as a mono therapy by the FDA in March 2014 for the treatment of psoriatic arthritis and September 2014 for the treatment of moderate to severe plaque psoriasis. While monotherapy with biologic agents is effective for many patients with psoriasis some patients are not satisfied by the outcome and require combination therapy. No data exist on the safety of apremilast as a component of combination therapy with biological therapies.

METHODS

This was retrospective study, open label study carried out at a single community Rheumatology center. Twenty-two patients diagnosed with plaque psoriasis and psoriatic arthritis according to American college of Rheumatology criteria participated. Apremilast was added to their current biologic agent. Patients were permitted to their current biologic treatment.

RESULTS

Number of patients	Biologic Name	Length of combination (months)
6	Adalimumab	3-14
5	Ustekinumab	4-24
4	Infliximab	1-17
3	Golimumab	3-11
2	Certolizumab Pegol	1-9
2	Etanercept	1-7

***Figure 1**: Number of patients on biologic combination and length of combination*

Number of Patients Affected	Side Effect
2	Nausea
2	Diarrhea
1	Weight loss
1	Abdominal Pain

***Figure 2**: Number of patients affected by side effects listed*

Mean Length of Combination	Mean improvement of CRP
8.1	6.5

***Figure 3**: Average length of combination and improvement CRP of patients (n=22)*

DISCUSSION

Apremilast, is an oral phosphodiesterase 4 (PDE 4) inhibitor that offers an alternative side effect profile, easier administration given its oral use . Apremilast has been approved for the treatment of moderate and sever Psoriasis and Psoriatic arthritis , its efficacy has been demonstrated in two pivotal phase three clinical trials (ESTEE-1 and ESTEEM-2) . Many patients with psoriasis and psoriatic arthritis are not satisfied by the outcome with the monotherapy of apremilast or biological and require combination. Our patients reported improvement on the combination therapy. Few data exist on the safety or efficacy of Apremilast as a component of combination therapy with either DMARS or biologic therapy. The duration of the combination with a mean of 8 months(1 Month is the shortest and 24 months is the longest). Some side effect were reported in the form of diarrhea, abdominal pain, nausea and weight loss but no major side effects of cancer or severe infection were reported.

CONCLUSION

Apremilast can be safely and effectively combined with all biologic agents in patients with plaque psoriasis or psoriatic arthritis not responding adequately to these agents alone. No major side effects of cancer or severe infection were reported other than nausea and/or vomiting that were manageable in some patients. Our study, constant with the findings of few case reports and studies of combination therapy and reflect what happen in community sittings , also it warrants further investigation of Apremilast combination therapy particularly for cases of sever psoriasis and psoriatic arthritis with limited treatment alternative.

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