Omalizumab as a Potential Treatment Option for Solar Urticaria in Patients Refractory to High Dose Antihistamines: A Case Series

Khaldon F. Abbas[1], Alexander Shusterman[1], Masum Patel[1], Gordon Sussman[1,2]

[1]Gordon Sussman Clinical Research Inc, Toronto, ON, Canada

[2]Department of Medicine, University of Toronto, Toronto, ON, Canada

Introduction

- Solar Urticaria (SU) is a type of inducible Urticaria triggered by exposure to sunlight.1,3
- SU is a debilitating condition which significantly impacts the patients' quality of life. 1,2
- SU results in some patients completely avoiding outdoor activities. 1
- Symptoms are often controlled with antihistamines, but refractory in a subset of patients.1,2,3
- It has been reported that anti-IgE therapy with omalizumab can be an effective therapy option in patients diagnosed with SU. 1,2,3

Aim

- To evaluate the efficacy of omalizumab in SU patients refractory to high dose antihistamines.

Methods

- 7 SU patients who are refractory to antihistamines at 3 or 4 times the licensed dose and treated with omalizumab were evaluated for symptom improvement, and pre and post treatment Urticaria Activity Score (UAS-7).

Results

- All patients reported itchy red welts when exposed to sunlight.
- Mean age of patients was 37 years (range 20-49, M:F 3:4).

Table 1. Data and Summary of Patient Response to Omalizumab Treatment.

Patient	Age	Gender	Omalizumab dose	Time after onset of Omalizumab therapy to start of symptom improvement	Pre UAS-7 score	Post UAS-7 score
1	32	F	450 mg q 4 weeks	2 months	42	7
2	20	F	300 mg q 4 weeks	1 months	34	18
3	44	M	300 mg q 4 weeks	2 months	28	5
4	49	F	150 mg q 4 weeks	1 months	36	10
5	45	M	600 mg q 4 weeks	8 months	30	9
6	42	M	150 mg q 4 weeks	1 months	42	2
7	29	F	300 mg q 4 weeks	1 months	42	8

- All patients did not report improvement in symptoms control following high dose antihistamine therapy.
- Omalizumab therapy doses ranged from 150mg to 600mg q 4 weeks.
- 4 patients reported significant symptom improvement when exposed to sunlight following 1 month after initiating omalizumab therapy, 2 patients following 2 months, and 1 patient following 8 months.
- UAS-7 score went from 28-42 pre treatment, to 2-18 post treatment.
- UAS-7 score went back from 2 to 42 in one patient (patient 6) 6 months after discontinuing omalizumab.

Conclusion

- Omalizumab has the potential to be an effective alternative or as an additional therapy option for SU in patients who fail to respond to antihistamines.
- Randomized controlled clinical trials with larger sample size are needed to better ascertain the efficacy of omalizumab in Solar Urticaria patients.

References:

1. Altrichter et al. (2019) Real-life treatment of cholinergic urticaria with omalizumab. *JACI*. 143(2): 788-791.
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